HIT Standards Committee
Final Transcript
January 25, 2012

Operator
All lines are bridged Ms. Deering.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Thank you very much and welcome this is Mary Jo Deering from the Office of the National Coordinator for Health IT and I welcome you to the 32nd meeting, I think it is, of the Health IT Standards Committee. This is a public meeting and there will be an opportunity for public comments afterward and I would ask the members to please identify themselves when they speak for the transcript. Rather than jumping in to take the roll, I'm going to turn it over to Jon Perlin because we have some new faces around the table and it would be interesting to have people identify themselves. So, Jon you want to take it?

Jonathan Perlin – Hospital Corporation of America
Thank you very much Mary Jo and good morning and welcome to everybody. I hope your New Year is off to a good start. It's great to see you here and when I provide some opening comments we will elaborate a little bit really reflecting on how much has been accomplished, how much attributable to the collective efforts of many certainly individuals at this group, the Policy Committee, The Office of the National Coordinator, but a cascade of activities that as we embark on the work of the New Year is really quite remarkable. I'll come back to that momentarily. For right now it would be terrific to go around the table, introduce yourselves. I think we should re-establish the tradition of identifying any potential conflicts as you do that by way of disclosure. But, I want to begin with introducing a new colleague whose name I'm sure is familiar with many but whose face is new to this table and that is Dr. David Muntz the new Principle Deputy Assistant to Dr. Mostashari in the Office of the National Coordinator and a delight to welcome Dr. Muntz and perhaps you might start by some of your background and we welcome you.

David Muntz – Principle Deputy Assistant – Office of the National Coordinator for Health Information Technology
Thank you very much and it's been a long time since I've heard the term new face associated with me so I can tell you it's a very generous group. You are also very generous I am not a physician, but I appreciate the title. My father was a physician so I'm used to hearing Dr. Muntz I was looking around for him. I do want to go ahead and give you a little bit of background. I've been asked to talk about how I got started in this.

I started my career as a biostatistician working in a blood bank and research institute in Dallas, Texas, worked all the way up from being a biostatistician fell in love with computers and healthcare, and eventually became the CEO of that institute. Then worked at Texas Health Resources, which was a large system located in Dallas/Forth Worth area and was CIO there for 15 years and most recently served as the CIO at Baylor Healthcare Systems. So, I've been very fortunate in my career to be exposed to a lot of people.

I also want to express my own gratitude for the work that has been done by the committee, it really represents not just ordinary, but radical collaboration I think to seek people with a shared interest but also so many different experiences come together and create something as remarkable as has been done by this group. So, I do want to say thank you very much. I'm sorry that I'm going to have duck out a little bit, but it's only my 13th day, I'm still counting in terms of days how long I've been here and coordinating my calendar has not been as easy as I expect, but I'm going to have to facilitate another meeting and so the laws of physics won't allow me to be in both places, but I will try to make sure in the future that I'm able to spend time here because I'm keenly interested in what everybody is doing, and again just want to

express my sincere gratitude to everybody here and everybody who is listening, and everybody who is supporting you and your efforts to move the ball forward very, very quickly. Thank you.

Jonathan Perlin – Hospital Corporation of America
Thank you very much for those opening comments and we welcome you to the work of this committee and thank you for really taking on the mantel of responsibility in this new role. Let's go around the table so that you have not only faces with names, not just for you, but also a couple of other new members of the committee and we'll also go to the folks on-line and for anyone who might be substituting or sitting in and one most essential individual is the individual who initiated this call, Mary Jo Deering if you'd start then we'll come down around the table.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Mary Jo Deering in the Office of the National Coordinator and lead for their FACA Programs among other things.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Doug Fridsma, ONC, Office of Standards and Interoperability.

Betty Joy - NIST
I'm Betty Joy…I'm substituting. I represent NIST today.

Floyd Eisenberg – Senior Vice President of Health Information Technology - National Quality Forum
I'm Floyd Eisenberg with The National Quality Forum.

Tim Cromwell – Veterans Health Administration – Director Standards & Interoperability
Tim Cromwell, Department of Veterans Affairs.

Stanley M. Huff - Intermountain Healthcare
Stan Huff with Intermountain Healthcare and the University of Utah and I'm also, I guess, as potential conflicts I'm a co-chair of the LOINC Committee and also a member of the Board of HL7.

David Kates – Senior Vice President Clinical Strategy – NaviNet
Dave Kates head of Clinical Strategy for NaviNet.

Elizabeth Johnson – Tenet Healthcare – Vice President Applied Clinical Informatics
I'm Liz Johnson, Tenet Healthcare.

John Derr – Golden Living, LLC
John Derr from Golden Living representing long-term post acute care. I'm also a trustee on CCHIT.

Christopher Chute - Mayo Clinic College of Medicine
Chris Chute, Mayo Clinic. Potential conflicts, I chair the ISO technical committee for Health Informatics and also chair the ICD-11 revision work for WHO.

Anne Castro – BlueCross BlueShield of South Carolina – Chief Design Architect
Anne Castro, BlueCross and BlueShield of South Carolina and I have no conflicts.

Jonathan Perlin – Hospital Corporation of America
Jon Perlin, I work at HCA as Chief Medical Officer and also adjunct faculty at Vanderbilt University by Medical Informatics Medicine and Virginia Commonwealth University. We'll skip to Dixie Baker.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I'm Dixie Baker, Science Applications International Corporation.

Walter Suarez, MD, MPH - Kaiser Permanente
Walter Suarez with Kaiser Permanente and no conflict.

Wes Rishel – Gartner, Incorporated
Wes Rishel, Gartner. No conflicts unless you count the voices in my head.

Leslie Kelly-Hall – Senior Vice President for Policy, Healthwise
I'm Leslie Kelly-Hall from Healthwise. I'm a new member here, former CIO of a health system in Idaho and passionate, very much, about the consumer and their role in their own healthcare. Thank you.

Jamie Ferguson - Kaiser Permanente – Executive Director HIT Strategy & Policy
Hi, Jamie Ferguson, Kaiser Permanente and I guess potential conflicts I've recently joined the Executive Committee of CIMI and the Board of HL7, and I'm also on a committee at IHTSDO.

Rebecca Kush – Clinical Data Interchange Standards Consortium (CDISC)
I'm Becky Kush with the Clinical Data Interchange Standards Consortium or CDISC. I'm also on the Board of HL7 and we participate in CIMI and we lead the Joint Initiative Counsel for Global Harmonization of Data Standards.

Natasha Bonhomme – Director Strategic Development – Genetic Alliance
Natasha Bonhomme substituting for Sharon Terry of Genetic Alliance. No conflicts.

Cris Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Cris Ross with SureScripts.

Steve Ondra - Office of Science and Technology Policy at the White House
I'm Steve Ondra with the Office of Science and Technology Policy at the White House. I just want to take a minute to thank this group for the privilege of participating. This has been such a privilege. This is my last meeting. I'm leaving the White House on January 31st returning back to Chicago for clearing and cleaning my basement and other chores that have neglected for the last three years. And at some point I'll figure out what I'm going to do when I grow up, but it has been a real privilege to be a part of this group and the amazing work that has come out of it and thank you.

Jonathan Perlin – Hospital Corporation of America
If I could just take a moment of prerogative to thank you for your participation and leadership on this group and really your leadership and taking responsibility in government, appreciate all of your efforts and wish you well in the next step. Let's go to the folks on-line, make sure that they have a chance to introduce as well, we'll come back to Dr. Halamka, who I know is on, but Mary Jo if you could call the folks that you know to be on-line.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Well, actually, I'm not sure I do know everybody who is on the line, so perhaps I would say take yourselves in alphabetical order as you understand it and introduce yourselves please, the members.

Carol Diamond – Markle Foundation
Hi, this is Carol Diamond with Markle.

Cathy Carter – Director of Business Applications Management Group - Centers for Medicare & Medicaid Services
This is Cathy Carter, I'm actually sitting in for Lorraine Doo who is the member on this committee. I work at CMS, although I work in a different area than Lorraine, I'm the Director of the Business Applications Management Group and I have a bunch of different responsibilities, one is managing the on-going operations of the HITECH Program, the incentive payment program and all the health desk and system support behind that. I also manage all the systems that are used to process Medicare Fee for Service

Claims and all the associated things like the inquiries about beneficiary eligibility and some other assorted systems.

And then finally, and perhaps most important for this purpose, I have one division headed by Chris Stahlecker who is responsible for dealing with all of the standards that are used in our line of work and the issues I think for us are the coordination and connection between those standards for administrative standards for processing and transactions versus the standards that this committee is dealing with and trying to determine going forward sort of what is the relationship there. Thank you.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
That's Lorraine Doo and then with Cathy as her backup is replacing Karen Trudel who has moved on to a new position in CMS. Next, on the phone.

Marc Overhage – Siemens Healthcare
Good morning, Marc Overhage, Siemens.

David McCallie, Jr. – Cerner Corporation – Vice President of Medical Informatics
This is David McCallie with Cerner.

Arien Malec – RelayHealth Clinical Solutions
Arien Malec, RelayHealth.

James Walker - Geisinger Health System
Jim Walker, Geisinger Health System.

Jonathan Perlin – Hospital Corporation of America
Okay and I know I heard Dr. Halamka's office join in, we'll come back.

John Halamka, MD, MS – Harvard Medical School
I'm here and so good morning everybody and certainly Jon Perlin thanks so much for covering for me in Washington. I will see you at the February meeting.

Jonathan Perlin – Hospital Corporation of America
Well we appreciate your virtual presence and thank you very much for your leadership. We'll come back to you John momentarily for any other opening remarks. But I want to come back to David Muntz and ask if there is anything else you would like to offer to initiate conversation or shall we move into the body of the meeting.

David Muntz – Principle Deputy Assistant – Office of the National Coordinator for Health Information Technology
No, I think moving into the body of the meeting makes great sense, thank you for the opportunity.

Jonathan Perlin – Hospital Corporation of America
Terrific. Well, thank you. For those of us who stayed up last night and watched the State of the Union and it was a fitting metaphor really for today's agenda. As we look forward to today's agenda I want to thank The Office of the National Coordinator really for teeing up a set of activities. And the beginning of the year is a natural time to take stock of where we are and where we're going. I think today's agenda is really so important in terms of stage setting and particularly as Doug Fridsma leads us through a discussion of a number of activities that are listed on our agenda, but from the lens of really the ecosystem and portfolio of resources that can realize through which the use cases that might be imagined in that ecosystem can occur, not to steal his thunder, but really the sort of…aspects of enabling stakeholder participation, curating a portfolio of not just standards but really we've heard John Halamka really describe the essential components of vocabulary content and transport as three of the essential ingredients, but added to that security and services to create a framework through which these use cases can be realized.

And I think that scheme up for thinking about the activities ahead is very useful. Now, is that ambitious to begin to provide a little more structure around curating this portfolio of utilities that makes interoperability and the use cases possible, absolutely it is. But, I really do want to come back to the very first comment is that as we first convened, a little over three years ago or I guess Mary Jo you said it was our 32nd meeting, it's really quite remarkable to look at the progress. One measure, the number of entities that have attested for Meaningful Use, but I think that underestimates because that's really the leading edge, it's the bow wave. There is a lot of work in preparation for attestation and movement toward participation fully in that ecosystem. So, that train has left the station and a lot has been put into action and that's hugely exciting.

Now this isn't…as exciting as the holidays were I think many of you where aware that Dr. Halamka had some significant health challenges in his family, I too had some health challenges in my family, and am pleased to report on a personal front that all went as well as could possibly occur, save for one thing, the ecosystem included transitions of care is still not robust in terms of having the capacity for interoperable health information and when one takes it back, as each of us can, I don't think it's a personal experience, but a personal experience that's really informed by each of your professional disciplines and exposures, expertise and evidence, then really I think we still realize that the call to action is as immediate and important as before, but in fact more tantalizing because it's not in a complete abstraction, it's really an opportunity that's based on a huge amount of work that has occurred, and so both from the privilege of chairing this committee, but from the perspective of consumer and perspective patient at some point, I am truly grateful for the work that you're doing and as I look to today's agenda in that sort of State of the Union context, as I look at the specific activities that we'll be discussing with respect to the 2012 work plan and some updates from ONC broadly, this portfolio, different attributes that I mentioned, really is a vehicle not only for realizing increments of personal healthcare but health for the country and for purposes of public health.

The self-reinforcing cycle it will be the basis as well of being able to assess not only the quality of individual care outcomes and I look forward to particularly the Clinical Quality Workgroup update and some recharging of their activity, particularly as we move forward from the capacity to report on, you know, a unique set of quality metrics to the broader capacity to have a vocabulary and set of standards that allows really addressing broader questions of quality as they occur, and thus the opportunity to realize an ecosystem that's increasing informed and connected that also is going to necessitate discussions that is important for all of the administrative transactions by way of just putting a placeholder a little further down the agenda.

You know, we are entering the era of health information exchanges, the work of the 1561 Workgroup is something that we will need to return to and will cue Doug up for some comments on that, but that really is just a whirlwind tour of the elements of focus and the state of our activities at this moment. So, much to be proud of, much to do and I think a lot of momentum from which to go forward with some really critical, occasionally difficult conversations about how to advance this ecosystem or portfolio, as Doug has called it, a vocabulary content, transport, security and services that allows each use case to be realized. With that let me turn to Dr. John Halamka for any additional opening comments.

John Halamka, MD, MS – Harvard Medical School

Great, well thanks so much and as you said today importantly Doug will reinforce our work plan for the year looking at the next four quarters and we've discussed, in our last meeting, that they will be broken out into quarter one, two, three, four with a set of four to five activities of each quarter, importantly quarter one, which initiates today will reflect on quality measurement standards, the approaches we want to use to reinforce quality improvement and some of the innovations that might be required to rethink the way measurement is done, making it more flexible and not so hardcoded.

We'll reflect on NwHIN Exchange again and we'll hear a new charge, from Doug, looking at the implementation experience and taking the blog input that we've had and generating some lessons learned. There have been many questions about how we can accelerate interoperability with semantics, vocabularies and value sets that are uniquely placed into a central repository and made available for

download or possibly even some web based application program interface and we'll hear from Doug about some of the possibilities there, the work done by the NLM and ONC, and again, a charge to our vocabulary taskforce.

So, as promised, quarter one was going to be about quality, exchange and value sets and we'll have agenda items today about those three issues. And I also look forward of course to quarter two, as Jon said, my wife was diagnosed with cancer in December and had the opportunity to get a diagnostic mammogram at one hospital and then was told to go to the medical records department wait for a couple of hours so that a CD could be created so that she could drive 20 miles to deliver her images to a specialist in Downtown Boston. And what we hope, though DICOM is an excellent standard, that there are implementation guides and recommendations that we can make so that my wife will never have to drive a mammogram 20 miles when it can be sent instantaneously over the public internet. And we'll have many other interesting discussions, as Jon has said, throughout the year which Doug will outline for us and with that I'll turn it back to you Jon and look forward to the discussion.

Jonathan Perlin – Hospital Corporation of America
Well, thank you John. And of course, I know I speak on behalf of the committee, that our thoughts and prayers are really with you and your family for good health and for succeeding, as you called it, the sneakernet with the internet. So, with that let us move to the body of today's work. The first item of action is of course the approval of minutes. I would ask you to complete any thoughts you might have on that and if you have any amendments, corrections please do let me know. As you're looking at those I would just take a moment to thank The Office of the National Coordinator, as always, for really a very sensitive and accurate capture of very intense discussions. Yes, Dixie?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Just one that Mary Jo you highlighted anyway, the spelling of PHIN is PHIN that you have highlighted on page 3 on the bottom.

W
Hello, can you pause it for me?

W
Yes.

W
Okay. I'll be here until probably 4.

Jonathan Perlin – Hospital Corporation of America
I'm sorry if someone has an open line could you move your open line please? Okay. I am going to take that as an amendment to the minutes. Hearing no objections and incorporating Dixie's correction I consent this to be approved and we'll now move to Doug Fridsma and the Health IT Standards Interoperability update and work plan. Thank you, Doug, your staff tells me indeed it was the office of no Christmas and judging from the depth of material obviously this has been a busy holiday season, we appreciate that work.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Thank you. I'm delighted to be here and again welcome everybody to the New Year. We've got a lot of exciting things ahead and I'm going to thank you in advance because we have a number of things that we're hopeful to get some thoughtful input as we go on in the future. So, what I'd like to do today is give you just sort of another iteration of the living document that we have that represents the work tasks that we've got to try to get teed up and to spend a little bit of time getting your feedback to see if there is anything that we've missed on that list, if there are things that we need to add. There is already one thing that I'm going to add as well and when we get to that I'll put that on the list.

And then what I'd like to do is give you a little bit of an update on some of the other activities that are going on. There is some activity that is going on within the NwHIN exchange, that is that sort of consortium of folks that are trailblazers in developing methods for information exchange and then to talk through some of the other activities. I am going to use you guys as a guinea pig too, because I'm trying to figure out a good way to convey where we are and where we're going. A year ago we couldn't talk about this portfolio of standards, services and policies because what we had was an empty binder with just a few things in it and we needed to create that portfolio, take some existing standards and sort of break them up into pieces, find new things that we had to do and certainly the work of this committee in identifying those standards, working with the S&I Framework activities was instrumental. So, we're a year into it.

The work that we started with the S&I Framework is just one year old right now and I'm going to give an update on some of the accomplishments that we've had there. But, I think we now are at a point where we can start talking not just about the building blocks but how those building blocks, the bricks laying out in the field can be assembled to build us houses and to build a shelter, and to build us the things that we need to be able to enable interoperability. So, when Betsy and I are going to talk about vocabulary I'm going to try one approach, I'm going to try another approach with some of the slides here. I welcome your feedback because it is critical at this time that we are able to communicate the value of what this committee is doing, the importance of the strategy and the approach that we're taking with standards, it is unlike anything that has been done in the world quite frankly, and I think we need to be able to communicate why we think that is working, and if it's not working what are the things that we need to improve. And so, I'm going to try a couple of things and you guys can tell me afterwards whether it worked or not and we can kind of go from there.

So, this is just a refresher from December 14th and so I wanted to just sort of step through this. We're going to get an update from Jim Walker about some of the Clinical Quality Workgroup because that is one of, I think, the key initiatives that we need to get started and we've been doing some work since our last meeting to try to develop a work plan, a charter, a scope and hopefully Jim will be able to talk a little bit more about that. I don't want to steal his thunder.

I think when it comes to Q1 there are a couple of things that I'm hopeful that this committee can help us with. The first is there are going to be some new NPRMs and ANPRMs that are going to be coming out of our office and it is going to be critical for you guys to take a look at that and provide us some feedback about whether we got it right, what are the things that we can improve, and how can we do a better job with things. And so, I expect that in Q1 we should be able to have some time that will be discussed there. Now, I leave it to Jon and John to figure out how to distribute that work among the various committees. We may in fact want to take those Meaningful Use regulations and the ANPRM around governance and divide that up so that we can sort of divide and conquer, and I know that in the past that was a very effective way to have those teams work together and then come back as a committee to be able to then discuss that further. And so that is one of the things that I think we are going to have to tee up relatively quickly and think through how we're going to be doing that.

The second thing is about quality measures and we've been spending some time working with Jim Walker and with others to sort of reinvigorate that group. Obviously, this is a critical part of the portfolio that we have to make sure that we've got quality measures that can be translated into electronic or eQuality measures and do so in a useful way. We've had some tremendous analysis that Jacob Reider has been doing within The Office of the National Coordinator taking a look at data standards and how those relate to the quality measures.

But, I think there are a couple of things that I am hopeful that this group can help us with. I think the first is, we as a committee, the Standards Committee, we own the standard syntax. We may not own what that quality measure should be, we may not own kind of who should prioritize those things, but when it comes to the standard use to represent quality measures, I think that falls firmly within this committee's purview to try to make recommendations about what is good and what is bad.

To that end, and this kind of leverages the work that Dixie did within the Nationwide Health Information Network,Power Team, one of the things that working group did that just was so tremendous was helping us understand what success looked like within the standards that we had and I think within the quality space trying to figure out what's a good eQuality measure? What are the characteristics of that? How can we say whether, you know, is it implementable, how does it relate to data? All those other things, I think is going to be one of the charges that we'll have there.

I also think that we've got a lot of people who are working on quality measures, because it's important and there is a lot of work that needs to be done. But, sometimes when I think about it, we don't have a whole series of swim lanes with good hand offs. It's like we've got a giant pool and it's like water polo and we're all in there kind of doing a lot of stuff, and I think it's going to be tremendously helpful for us to think through who should do what, when around quality measures. And I think this group can kind of tee that up. I don't think we can finish the work because it's a broader conversation with policy and it's a broader conversation with other stakeholders and so that is one of the other things, because I think that helps us determine both our charge and the scope of work, and so that's another thing that I'm hopeful that the Clinical Quality Group can work on.

I kind of alluded to one of the things as well is the NwHIN standards criteria and I've talked with Dixie about this. I think we've done tremendously good things about trying to say "well is a standard adoptable? Is it simple? What are the characteristics of a good standard that we'd like to promulgate sort of for national roll out?" I think there's still some work that needs to be done to kind of finalize that or at least to get some other input. We were sort of right at the end trying to get ready in the fall, but I would like to revitalize that committee, maybe get some people that can help us with measurement signs, stats from my office or from NIST or whatever, so that when we think about those criteria we don't have everybody clustered in the middle but we figure out a way to spread that out and have some really nice measurements or criteria that we can measure objectively and can be able to sort of encode. So that is one of the other things I think that we'll get started in Q1, we'll probably get interrupted by some of the NPRMs that are coming out, but I certainly think that's a conversation that we should begin.

One of the things that I've missed on here, and Anne, thank you so much, is that as you all know, the insurance exchanges, as part of the Accountable Care Act, are sort of on their launch pad and are going. And one of the things about those insurance exchanges is that there needs to be standards for how the federal hub interacts with the states and with the payers, and things like that. Obviously, there are very, very key deadlines that CMS is working towards that I think we have to be respectful and responsible about making sure that we can meet those, but at the same time we have to also make sure that we've got transparency in the process, that we can give the industry some heads up around that. And so one of the things that's missing on this list is really to talk about 1561, to talk about the mean process that we've got around that and to see if we can't provide some communication within this group about the activities that are going on there, and so I think that will be an important thing for us to do as well.

In Q2 I think we'll continue the NwHIN discussion. I think at that point we'll have an update of the Query Health review. Query Health is important because the way in which you issue a query and this goes back to Jon Perlin's comment last December that what we really want is not so much a hardcoded quality measure but a way that we can ask questions around quality. And so the Query Health is a way for us to kind of think ahead to that and I'm hopeful that in Q2 we can have an update of that particular group.

It's important for us as well, and this comes from conversations of both the HIT Policy Committee and Paul Tang has cued up, around imaging standards and making sure that we represent and have had a thoughtful conversation about that. I think if you remember from December 14th I called these radiology standards, but I've sort of broadened that scope to say it's not just radiology but there may be other images that we need to consider as well, and so we need to have a conversation about that. We've had some conversations with the HIT Policy Committee and I think they're going to help provide us a little bit better scope as to what it is that would be helpful as they think through these problems. And, I think this is one of those areas in which a conversation, a dialog between the Policy and the Standards Committee will be very, very helpful, and so that is one of the things I think in Q2 that we'll want to tee up.

I've got vocabularies listed both in Q1 and Q2. I think what will likely happen is that as we dive deep into the clinical quality measures we are going to find very, very quickly that vocabularies and value sets are an important thing for us to manage. And I think with any of these things it's really important that we try to do these in as real a matter, not in an abstract matter, but trying to solve a real problem. So, I think quality measures will help us understand how to manage value sets, how to manage vocabularies and to do that in the context of that, which I think will be generalizable to other areas. Certainly, some of the work that we've done within The Office of the National Coordinator and work that Blackford Middleton and others have done around clinical decision support, managing value sets was a critical problem that they had that they had to overcome as part of the clinical decision support and it's a related topic when we talk about quality measures as well.

As we go onto Q3 and Q4 it isn't that these things are less important, it's just that a matter of I don't want to overwhelm you guys in February with all the things that we have to do, but I think at some point, once we get through some of the early rules and we've got some feedback, I would love to get some thoughtful conversations from this group about whether our standard strategy is on track and are we doing the right things? Are there pieces that are missing in our standard strategy? Do we need to have ways that we can coordinate across the United States? How do we engage the international community? Are we doing the right things in how we're building out our portfolio?

And I think it would be helpful for us to step back and have sort of that strategic discussion at some point. And that relates to other things like green CDA. Have we gone far enough with transitions of care in the consolidated CDA? Do we need to move further towards a green CDA? How do we make sure that people have the ability to get to the resources in a singular place and who does what, where? Consumer mediated information exchange, again, how are standards that we've got right now that are focused around certification of EHRs, how do we make sure that we can accommodate standards that need to enable patients to be able to have access to their information?

And then finally there are some other things in Q4 really are things that, you know, I want to keep us cognizant of and if we can do it sooner that would be great, but things like data and practice portability, being able to move between different implementations without losing all of your information or having it locked in. Public health is going to be a common problem that is going to have to manage vocabularies and value sets and the standards criteria that we've got. And then the maintenance strategy for standards. Again, that sort of fits into that kind of higher level view of the world. So, I'm hopeful that we can get all of these things kind of cued up. I think we're going to try to stagger this as best we can and I'll be working with a lot of the members of this committee to try to help us take care of things.

Ultimately, I think the other thing that is going to be important is for us to realize and it's the reason I want to go from building blocks to, you know, how do we assemble these things together to solve real problems because I said this when I started and I still mean it, success in the standards are not developing standards and specifications but it is getting them out there and getting them used. And so we need to think that through with our standard strategy and making sure that we assemble solutions that work that people find valuable. So, that is sort of the lay of the land. I hope people have been taking notes because we're going to be calling on you. But are there things that we're missing? Are there things that we need to move around? I welcome sort of a conversation about things.

Jonathan Perlin – Hospital Corporation of America
So let's put that forth for discussion on that, the cards are flying.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
And all the cards go up.

Jonathan Perlin – Hospital Corporation of America
And we'll work around from left to right. We'll start with Leslie Kelly-Hall.

Leslie Kelly-Hall – Senior Vice President for Policy, Healthwise

Hi, Doug. In the last meeting we talked about timing because the consumer mediated information in your Q3 would inform much of the design work that you're doing in Q1 and Q2, we don't have the concept of the consumer and patient involved in data exchange early on in design, are we then not able to catch up by starting in Q3?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
So, the question there is should we move that up?

Leslie Kelly-Hall – Senior Vice President for Policy, Healthwise
Right.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
I think that is a bandwidth question. If we have the ability to do this sooner I would fully support doing that. We would just need to think about where that would go and who could help us with doing some of that work.

Leslie Kelly-Hall – Senior Vice President for Policy, Healthwise
Thank you.

Jonathan Perlin – Hospital Corporation of America
Wes Rishel?

Wes Rishel – Gartner, Incorporated
Looking around the room I see all the nerds whose cards went up. I have a couple of questions. One could you remind us what are the NPRMs and ANPRMs that are in your short-term range right now and give us whatever guidance you can on when you expect them to come out?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Sure. So, the NPRM, which is a Notice of Proposed Rule Making, a little bit further down the standards or regulatory process will be the standards and certification criteria for Meaningful Use Stage 2 and I don't know, I mean we certainly expect that to be out in the first quarter, we are working very diligently to try to get that out. I don't have an exact date, but certainly within the next month or so we hope to get some of that work together.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
CMS is saying that their NPRM on Meaningful Use, is targeted for February.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Okay and we'll try to get ours out around the same time. So, February is kind of when we might see that standards and certification criteria. The ANPRM, which is the Advanced Notice of Proposed Rule Making, is going to be the governance rule. Remember there was that one line in HITECH that says The Office of the National Coordinator shall establish governance over the Nationwide Health Information Network, that one sentence is what that ANPRM is.

And the thing about an ANPRM is it's really some place between a request for information and a Notice of Proposed Rule Making, it says we have some ideas but we haven't quite locked any of this down and we just really have a lot of questions. So an ANPRM is more about asking specific questions like are we missing something here? Should we do something? Is this a reasonable approach? Have we not considered x, y and z? So the ANPRM is really an opportunity to get some advanced input before we would then create a Notice of Proposed Rule Making.

The timelines are going to be relatively quick. We really would like to get a governance rule out sometime this year if we could. But this is an opportunity for us to get some early feedback, sometimes what that does is it provides a higher quality Notice of Proposed Rule Making and as a result it gives us a little bit better fast track if you will.

Wes Rishel – Gartner, Incorporated
Thanks. Along the line of things that you didn't mention, although you may have just mentioned it under the ANPRM, we've had several discussions in this group on the rather elusive issue of what it means and how would one establish trust among communicants of electronic health information. And my own experience working with my local small county health information exchange and certainly my experience working with Direct has led me to believe that it's important and not knowing a direction is to a certain extent freezing or making it more difficult for industry to find ways around it. So, I would add that to your already long list of things. You know, it's a huge problem. There are no easy answers. CMS is dealing with it separately with regards to collecting data from practitioners for fraud audits. Somehow we need to create levels of enablement depending on how much of the trust is formally evaluated by an organization and how much is informal in a community, but the mechanism for communicating it ought to be the same.

Virtually all of my other comments are going to be based on my new bumper sticker, which is get it going, get it good, get it great, and it's really nothing new except to say that in the real world you get things done by iterating on experience rather than by figuring it out up front. That's a very hard philosophy to hold to with standards, if you put out a standard and say "well we know we're going to change this, but go ahead and implement it." Nonetheless, I don't see an alternative in a lot of cases.

So, as we start talking about quality measures with no disrespect for what we've done, we've got it going. We have a year of Meaningful Use attestation experience now, implementations and occasional implementation errors in EHRs, EHR products and it's quite possible that there are other latent errors out there that will not show up until we go from attestation to sending data. I don't know of any, it's just that has been the way the world works, if you actually look at the data you'll find more problems.

The important thing for us in the next level is to get the feedback on round one, the get it going round. So, I would suggest to the committee chairs that early on getting testimony from various small and large institutions and vendors addressing those two things, on their experience, would be very valuable in our shaping a future approach. I've already mentioned that one of the CMS programs where there is a requirement for clinical data to flow from provider to payer, another would be HIPAA claims attachments. There are probably dozens of others. The one that our clients are telling us is most vexing is actually probably not in the purvey of this committee but it's how would an accountable care organization get claims data from payers about a patient in order to understand the previous history of the patient to understand how to manage them better whether they require special targeting for support and things like that.

You and I have talked a lot about the next step after vocabulary and value sets which I have called molecules in my blog, it has to do with the way that several different data items must be coordinated including the code set and vocabulary set that are used to represent them or even to name them in some cases. And I know that you've been diligently working on it and because of the international concerns it has been frustrating. I doubt that there has ever been anyone in a national program who has found international efforts moving fast enough to meet the requirements of national legislators and the political requirements of term of office. I honestly don't know what to do about that. We have a time sync but I think we need to try to work with the CIMI folks to find out a way to get whatever benefit we can out of the work they're doing even as we set up a US strategy. And those are my comments, thanks.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Thank you.

Jonathan Perlin – Hospital Corporation of America
Thanks, let's continued around the table. Thank you, Wes. Walter Suarez?

Walter Suarez – Kaiser Permanente
Yeah, thank you. Thanks for that intro presentation. I have three or four quick comments and questions. The first one actually I'm going to let Dixie frame that, we were just chatting behind scenes here about privacy and security and the place where the next set of privacy and security activities would fit on our 2012 schedule because we didn't see anything highlighted and there is certainly a number of important aspects that we would like to see covered, and so I will let Dixie frame those. I have a quick question actually as Wes was asking about NPRMs coming up and ANPRMs and IFRs or whatever, you didn't mention anything about the follow-up of the ANPRM that was published last year on Metadata. Could you say a word about what the next step on that would be?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Well our plan was to take the input from the ANPRM and to fold it into the standards and certification criteria rule that will be coming out here. So, there should be some elements.

Walter Suarez – Kaiser Permanente
Oh, great.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
They used that as advanced and to roll that into the NPRM for standards and certification.

Walter Suarez – Kaiser Permanente
Great. Excellent. Thank you. The other comment I have is about public health, you mentioned it is sort of quarter four and this gives me sort of an opportunity to plug in some of the work that I know that FACA is doing, The National Committee on Vital and Health Statistics, I think at the end of last year we developed a pretty comprehensive plan to ensure a lot more coordination between the national committee and these two FACA Committees, the Policy and the Standards Committee, ensuring basically three things, cross communication, cross coordination, cross collaboration on four areas basically, the standards field, which includes the administrative standards that NCVHS has traditionally been focusing on along with the new standards like Wes mentioned, claim attachments that begins to fit and connect a lot more the administrative work with the clinical world, so standards is one of them.

The other one is public health and population health and that is where I see also a lot of coordination opportunities, and in public health and population health in a couple of areas the standard side itself, which is the realm of this particular committee, health IT applications in public health and then community health data initiatives, which is a new focus of our NCVHS population health subcommittee. Privacy and security is the third area and then quality is the fourth area and I think in quality there is certainly going to be a number of opportunities to cross collaborate and cross coordinate with the work that this committee is going to be doing. So, I just wanted to put a plug on that and we were very pleased to see the opportunity to cross collaborate with the Standards Committee and we were pleased to hear back from Farzad, himself actually, to acknowledge and support that coordination plan. So, that was basically my last comment. So, thank you.

Jonathan Perlin – Hospital Corporation of America
Thanks, Walter. Let's go to Dixie Baker and then we'll go to Floyd Eisenberg and then we have a number of folks on-line, after Floyd we'll take a query of our virtual participants today. Dixie?

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, I mentioned this at the December meeting but I know we were on the phone and all that and the ideas weren't fully developed in my mind, but I think there needs to be some thinking about privacy and security standards around virtualization and specifically software as a service. We know a lot of our small providers are going to be adopting their EHRs as software's of service and the whole cloud computing arena and also with respect to mobile access and mobile apps, I think we need some standards around those two areas. I did bring this up to Deven McGraw and Paul Egerman, the question of whether we

need additional policy around these areas to really motivate the development of standards and they concluded, we had an exchange and we concluded that there probably is no more need for further policy. So, to me it seems that this point is more appropriate for the Privacy and Security Standards Workgroup to perhaps take up and examine the potential need for additional standards around virtualization.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Dixie, thank you so much for that. I will take that as an action item. At the next go around let's see if we can't coordinate with the HIT Policy Committee Tiger Team, figure out what their priorities might be and then we can lay out an agenda. You know, privacy and security are so fundamental to everything we do, it relates to the issues of trust as well, that I think you are absolutely right that we probably just need to get that started and have that as a continuing conversation that has to go through all of the corners of work that we do.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Yeah, and of course Deven and Paul are chair of that Tiger Team.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Exactly. So, I'll take that as an action item to flush that out much like we've done with some of the quality work to sort of say "well what are the things that we need to do?" Okay.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Perfect. Perfect. Thank you.

Jonathan Perlin – Hospital Corporation of America
Thanks, Dixie. We'll go to Floyd Eisenberg and then on-line. Floyd?

Floyd Eisenberg – Senior Vice President of Health Information Technology – National Quality Forum
So, first of all I'd like to thank you and very much support the HIT Standards Committee taking on the standards components of what's behind the quality measures to make them querable and the value set work. I look forward to that presentation. I don't want to speak too much ahead of it, but the governance and management of value sets I think is essential to the measures. One of the comments about making the measures less hardcoded, I think is very valuable, especially for continuous quality improvement and for public health and for other purposes, standardized queries using the same standards are extremely important.

One of the areas that needs to be addressed for what I think you mean by hardcoded, I'd actually like a better definition of that, is the issue of providers specifically who see the results of performance in these measures effecting their income and when it gets down to that level there is a lot of concern about extra data and significant Metadata that makes it hard to find all that information in records whether paper or electronic. So, if there were some way to work around that and there have been discussions, but I don't think it has gone very far. Is there a way to risk adjust a practice so you don't need all this data? That may be a Policy Committee discussion more than a standards, but I think that's worth exploring, because that is where a lot of these details come from, and you need the measure developers in the room in discussing what you mean by hardcoded and what that means.

I also, based on Dixie's comment, looking at mobile apps, as we think more about what we need to evaluate quality and care, perhaps we should be thinking of the standards for the little information packets that get used in mobile apps so they can be used in measurement and in research, and in population health, especially when we talked about patient engagement and patient reported outcomes, because I think they will be coming more and more from the mobile apps.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability

And, I think that's also directly aligned with the comment about let's make sure that we get consumer mediated exchange up front. So, again, I think that was a great comment and I think that's probably another reason why having those conversations really is important.

Jonathan Perlin – Hospital Corporation of America
I appreciate the request for precision on the discussion of the quality metrics, I'm personally struggling with the way to articulate having quality queries that don't outstrip the data model, the implication there can be certain things that are required elements of the data model and the foregoing flexibility to generate additional queries, and then look forward to your helping us frame that with precision necessary to advance the dialog successfully. Thanks. Let's go on-line. There are some virtual cards up amongst our colleagues.

Arien Malec – RelayHealth Clinical Solutions
This is Arien.

Jonathan Perlin – Hospital Corporation of America
Arien, please go ahead.

Arien Malec – RelayHealth Clinical Solutions
Thank you. So a comment on the years plan. One thing that I think would be useful would be to map the standards portfolio, I think it's very useful to have a standards portfolio and thank you for laying these things out. I think it would be useful to map the standards portfolio to the policy goals that we have and I think a number of people have touched on some of those goals, but we were just in time for Meaningful Use Stage 2 and as it happened a little pressed for time for Meaningful Use Stage 2, and I don't think you can begin preparation for whatever is next, Stage 3, ACO, value based purchasing, you know, the broad portfolio of value based purchasing policy goals, I don't think you can begin prep for that next set of policy driven activities early enough.

And if the mission of the ONC is to radically reduce cost for interoperability in a way that ties back to high level policy goals, it would be useful to get some consensus on what those high level policy goals are for the next tranche and then to lay out where we have higher costs than we need to, and what kinds of standards work is necessary to reduce that cost. And, I think obviously, many of those items are already here on this slide but what I'm missing is the linkage between the policy and why we're doing this work and without that it feels, you know, we get into trap of doing work and then looking up and going "well we did the work and now we've got a bundle and a portfolio of standards, but there's no reason for anybody to use them and no drive for anybody to use them" and so, you know, what happens and I think with standards efforts in the past, national standards efforts in the past that have ended with shelfware as opposed to ending with smooth roll outs universally across the healthcare system.

So, rather than add one more pet project to the list just a call for tying all the work that we do back to those policy goals and being very clear about what the top five things are or, you know, whatever that is that we need to achieve in order to achieve those policy goals.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Thanks.

Carol Diamond – Markle Foundation
Jon, this is Carol, can I jump in?

Jonathan Perlin – Hospital Corporation of America
Please do.

Carol Diamond – Markle Foundation
Thank you. Doug I actually wanted to build on the comments that Arien made but also on the points that Wes and Dixie made. I think from the beginning the use of the S&I Framework has been useful in terms

of understanding the elements of all that is trying to be accomplished and I'm actually going to suggest, along the lines of Wes's bumper sticker, that now that we've test driven the S&I Framework at least the way that it's conceptually configured, it would really benefit from a conceptual configuration that is enhanced by both policy goals and by the trust framework that is necessary for this standards work to take place. And the reason I say that is I think very often we have the conversation we had today about the fact that we need to look at some of the trust policies kind of down the road and it would be really good if it became a frontend part of the process because it was embedded in the framework in the way that the framework had to manifest itself.

And I know others have raised some of these issues earlier. I agree with sort of the short-term fixes, but I really want to suggest that we look at a more holistic view of how the framework can raise some of these issues and incorporate some of these issues up front, in particular, you know, as was mentioned, there are a whole host of privacy and security and trust issues, I think on the table now, and also for Direct, and it would be nice to have it incorporated as part of a process that hung together from a framework stand-point rather than trying to do it, you know, sort of ad hoc.

Jonathan Perlin – Hospital Corporation of America
Thanks. Okay, let me see, John Halamka, any last words on this section?

John Halamka, MD, MS – Harvard Medical School
No, just certainly emphasize what the previous two commenters have said and that is our measure of success needs to be adoption and not just the creation of implementation guide. And Meaningful Use Stage 2 will give us much more interoperability and will force healthcare information exchanges to go into production. The rubber meets the road where you need to include 10% of hospital transitions, should that be what CMS and ONC decided in reality and not just a single test transaction, our standards better be easy to implement and robust.

Jim Walker – Geisinger Health System
Jon, Jim Walker.

Jonathan Perlin – Hospital Corporation of America
Go ahead Jim.

Jim Walker – Geisinger Health System
Quick comment, on the importance of taking patient and consumer needs into account I don't know if we need to move the consumer mediated info exchange farther forward, but I do think we would do well to have an explicit committee validated address to the needs that we think we need to meet for patients and consumers. I think that's really the important thing that needs to guide all the rest of our work.

Jonathan Perlin – Hospital Corporation of America
Thanks, Jim and I hope, Doug, this conversation and the inputs have been useful. A few recurrent themes including this last one that the conceptual framework, even if there is some sort of tactical work that has to occur, at least the construct has to be well enough or articulated so that we serve you and your needs and our collective needs as well as we might.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
This has been tremendously valuable and I want to thank everybody. As I said, this agenda is a living document. I think we should feel comfortable with making changes as priorities occur. Let me just parrot back what I've heard and I probably haven't gotten everything, but that way Mary Jo will appreciate it because it helps us with our minutes.

Consumer mediated data exchange is important for quality measures and it probably needs to be moved up in the list. Trust is important, you may hear about a little bit of that in the ANPRM, so look for that. The clinical quality group, probably a good idea to get early feedback from the vendors and that is something that we may want to work with Jim and others to make sure that we've got that. Privacy and

security, it under pins everything that we do and it sounds to me like there is not a lot of additional work necessarily with the policy but we've got virtualization offers a service, cloud computing mobile apps, we probably need to have some ongoing conversations about that as well, and so that is something that we should probably begin to tee up as well.

There are opportunities for coordination with NCVHS, certainly around administrative transactions and claims attachment but there may be some other areas as well. And that finally, you know, the "so what" "why are we doing all this stuff?" which is really to help patients to make sure that we are meeting our policy goals and that it all fits together in a way that makes sense and I think that's sort of the notion of making sure that we've got the standards portfolio mapped to our policy goals, that we've got those links in place, and that finally success is not the specification but it's the implementation and asymmetric by which we have to view what we do and to sort of feed it all back.

There's also some work around vocabulary and we'll have that as sort of a theme that will happen with this as well. So, I think that captures sort of the big bucket. I've probably left out a few things, but hopefully the minutes will reflect those omissions as well.

Jonathan Perlin – Hospital Corporation of America
That is a terrific summary and much appreciated. Mary Jo Deering wanted to?

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Yes, I just wanted to observe that while the Standards Committee is going through this very valuable exercise of planning it's 2012 work plan, of course the Policy Committee is doing the same. John Halamka gave a very good presentation to the Policy Committee at its last meeting about the work that you're doing, and I think we'll want to bring the work of the Policy Committee here so that you too can hear their work plan and we can try and sync them up. And, I do think over the course of the year there are going to be more proactive efforts to do joint activities, Doug mentioned imaging, quality is another one, probably around the governance issue will be another one. So, I think early iterative communication between the two committees would also help.

Jonathan Perlin – Hospital Corporation of America
Fantastic…with the activities. So, Doug this will also be part of an ongoing conversation about each of these action items. Do you want to segway into?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Sure. This is tremendously valuable. I'll take these action items back we'll see if we can do a little bit of work to help support the committees and the work that they've got. I've always found that the people around the table here are tremendously dedicated and highly productive and the best thing I can do is to provide a charter, a goal, a scope and to try to help support the group in getting to that. So, that is what we'll try to do as part of this agenda as well.

Now, moving on there are two things I would just like to update people on, to keep it on your radar, to see if there is any kind of midcourse correction that we need to do. I think it's important that this group be aware of the activities that we've got going on and have an opportunity in a public forum to ask questions and to see if there are other things that we need to consider.

So, the first thing I want to do is just give people kind of a where we are right now with the S&I Framework. I think we've had some good discussion about some of the things we need to do this year to tie this work into the larger policy objective. Obviously, the S&I Framework is intended to be a collaborative and coordinated process that provides incremental approaches to kind of putting out these building blocks. Obviously, this is guided by ONC and we've got input from the Federal Advisory Committee and it's something that I really do value in terms of creating an open and transparent process. We've got a lot of community participation and we're trying to solve some real world problems.

There are a number of initiatives that we've got going on and I think it's important to recognize that the S&I Framework has interactions with, you know, ONC, we run those contracts and we work with our contractors to help support the community. We've got a whole host of community members that come to the table. We have input and participation from the Standards Development Organizations and obviously I want to make sure that we maintain a good dialog with the Federal Advisory Committees as well. And so, I think it is just important to recognize that the S&I Framework sits in this ecosystem. It solves some of the problems but not all of the problem and that we need to always be thoughtful if there are ways that we can make it better and directed in ways that will be able to kind of support the work that we have in front of us.

So, here are some slides that I'm trying to kind of experiment with about how we're trying to build up our portfolio. I don't know if we have it all right here yet, but, you know, we have some work on care coordination, we've got work on quality, safety and efficiency, privacy and security and population queries. We've got a number of S&I initiatives, transitions of care, longitudinal coordination of care, some work on esMD, which is really about kind of making sure that we can link claims attachment and some of the work that CMS is doing as well both in terms of structure, content and for signatures. There is work on data segmentation and privacy that is trying to get to a more granular ways of protecting the data, and then the work that is going on in Query Health as well.

CDA and the consolidated CDA supports a large number of these initiatives in terms of kind of creating what that package looks like and we've got some work within Query Health that was presented in December to look at a standard HQMF as a way of sort of articulating that. And we've got this thing that we're calling CEDD because we want to distinguish it from other kinds of reference information models and the like and this is just our data dictionary about some of the clinical concepts that we've got. And we believe that this work is just, you know, kind of internally a way of us getting our handle around the kinds of clinical concepts that we are dealing with. We realize it probably needs to go some place or it needs to be integrated but we wanted to make sure that there was a way to help support all of that activity.

Within labs and public health we've got sort of care coordination around labs and we've got some public health work and so we've got a laboratory results interface and lab orders interface. Now, we aren't, right now, launching laboratory orders and interfaces, but there are some activities that are going on nationally to look at that. Within public health there is public health reporting as well as biosurveillance and immunization, and things like that. But one of the, I think, the accomplishments of this particular committee was actually being able to converge on a standard that would support all of those things sort of a singular standard, the HL7 2.5.1 standard and the implementation guides to support that. And so, I think that is a tremendous accomplishment that we really haven't had before in this country where there has not been sort of a direction that would help the industry move in supporting laboratories. So, we've got some work to do, but certainly helping care coordination and labs, we've got a number of initiatives to help support that.

There are care coordination as well and one of the pieces that we need are directories and so to help support that we've got certificate interoperability and FPKI is a Federal PKI infrastructure, it's sort of a federal bridge about managing certificates, we've got some work that has gone on there. And then certificate discovery, which is to say I need to send a message to someone, I need to find what their certificate is so I can protect that information, and so, again work on creating a transition path that allows us to use DNS, which is what Direct specifications have, but also to use LDAP as a way of doing that which is a common way of accessing directories.

There are activities on quality and safety, again where the provider profiles with esMD and query for electronic services that is really kind of an extension to say "does this organization speak Direct? Do they speak kind of the web services?" and we've got some work, I think, on harmonizing things like Microdata and REST, and SOAP, and X12, and HPD. I'm not sure we've got all of that necessarily completely worked out, but that is our sort of initiatives around directories.

Here are the nine initiatives. I'm not going to go through all of these but I just wanted to put them out there. I think it's good for people to have on their radar some of this activity that is going on. You know,

so transitions of care, laboratory interfaces, provider directories, work on certificates, Query Health, data segmentation, electronic submission of medical documentation, the public health reporting and longitudinal care coordination. It's a long list, there is a lot of really important things on there and it's a community really that has come to the table to try to address a lot of these activities.

This is where we are in the lifecycle. I think transitions of care is kind the furthest along and as you go back things like longitudinal coordination of care is really just trying to get their feet wet, figure out what their scope is. We call that prediscovery, we're just trying to figure out where we need to go with things. EsMD and data segmentation for privacy, they're really starting to develop use cases and scopes are worked down. Provider directories, laboratory results, interfaces and transitions of care are really the furthest along and I think we really are at a point where lab results, transitions of care are ready to launch and to start doing pilots, and it's important for us to make sure that we continue to press forward to make sure that implementation becomes our metric for success with these things.

Just a couple of metrics. So, we launched our first initiative on January 31, 2011. So, we are almost at a year, we are at 51 weeks. We now have over 1000 people that have registered on our wiki; we've got 457 committed members that represent over 335 different organizations. We've had 675 working sessions, the days between sessions is 0.4 days. That means that we're meeting about every 6 hours. We've got 17 use cases that have been developed, 150 different harmonized segments or sections of our standards. We've got 64 reference implementation and test artifacts. There are over 200 pilots that have committed to doing things or in sort of the phase of exploration that represents over 25 pilot vendors. There are 35 different healthcare organizations that are working on pilots with the standards and interoperability framework.

We have gone through three HL7 ballots, normally those take 24 months, we've done them in nine. We have received 1800 ballot comments and resolved close to 1500 of those ballots as well. A contentious ballot in HL7 might have 60 maybe 70 comments. So, this has been kind of a big task and we've really been able to, I think only through the support of the community and coming to the table, accomplish this work and I just again want to thank not only the people around the table and the people from your organization who participate in these things, but really the broader communities who have come together to try to solve a lot of these problems, and this really goes to what we hope to be able to produce, which is using the government to be a platform for success, to help support other groups to be able to come up with success with this, and I want people to just sort of have an appreciation of the amount of work that has gone on among the community and the participants within the groups. It's remarkable. The days between sessions that was to me the, you know, two meetings a day for these 1000 people, it's pretty remarkable.

So, that is sort of an update on the S&I Framework. I don't know we can stop there and see if there are any questions that people have about that and then I want to give a brief update about the Nationwide Health Information Network.

Jonathan Perlin – Hospital Corporation of America
Please, if anybody has any inputs? Cris Ross we'll start with you and then we'll go to David Kates and then Wes Rishel.

Cris Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
Well, Doug I would just make the comment that, you know, I think one of the measures of success of the S&I Framework is that we're seeing it referred to in various kind of procurement documents and RFPs, and statements about intent that, you know, organizations are looking to that Framework Group as an important place for reference where work is getting done and I think the fact that there are real world implications of it is impressive, and I just want to note that.

Jonathan Perlin – Hospital Corporation of America
Perfect preview, let's go to David Kates next. Thanks Cris.

David Kates – Senior Vice President Clinical Strategy – NaviNet

Doug in the Framework documents and maybe there are other discussions outside of that Framework that I may not have privy to, but a couple of areas that I didn't see included were specifically in the areas around medications and prescribing and those areas that are fairly mature, so those maybe already addressed from that perspective, but there are obviously new issues and new important areas that we can address including medication adherence and the like that might be some area of focus, and then more broadly in some of the early discussions around ACOs and value based purchasing, and things of that sort there are needs as it relates to attribution, as it relates to quality reporting and those areas, which again may be subsumed in those discussions, but I think are areas that may require some attention and would be happy to provide any support that we can.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Okay, thank you. Yeah, I think there are some activities not going on so much in the S&I Framework but as part of our SHARP grants, one of their initiatives sort of…SHARP is to look at medication reconciliation as being a really critical and tough problem to solve and we've got a lot of very, very smart people that are working on that to try to come up with some thoughts about how medication reconciliation, what are the issues and are there solutions that we could begin looking at.

Christopher Chute - Mayo Clinic College of Medicine
I would add there is a face-to-face meeting on that topic tomorrow here in Washington among the…SHARP members.

Jonathan Perlin – Hospital Corporation of America
Thanks, Chris Chute. We'll go to Wes Rishel, Walter Suarez and then Steven Ondra.

Wes Rishel – Gartner, Incorporated
I've had some interest in the work you've been doing on lab and want to compliment you, the S&I Framework and the individuals who worked in multiple venues in order to get it done. I think it truly is an accomplishment in an area that has been frustrating before, not only just getting it done but even understanding why it wasn't getting done was frustrating. So, that is really in my mind a good sign that some things are working.

You put up a series of initiatives some of which are on the order of the lab ones which for results was really taking a lot of experience, somewhere between get it going and getting it good, for sending structured lab results and others are very innovative, Query Health would be an example and some of the approaches you considered like Microdata were innovative. Do you have any thoughts on whether the process works as well for innovative work or how it should be different or things like that? It seems to me that when you pre get it going rather than pre get it good there are some different dynamics that work.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Yeah and we've been having some conversations and that may be something that at some point we can share with this committee, but there are some times that you need to take an initiative that is still in sort of a forming and storming period, if you impose a lot of structure on it you can impair its ability to move forward rapidly. You may have other things and I think this maybe goes to the prescription comment, that you've got pretty well established solutions and there is probably not a lot that needs to be done beyond that, there is sort of this sweet spot, and we're right now trying to figure out what are the things that are best handled in kind of an S&I Framework, what are the things that are best tracked but not necessarily, you know, supported in a way that requires a lot of the structure and validating and, you know, other things like that.

I'm always suspect when someone says well, you know, I've got something that can do everything and I think we have to be humble about what are the things that an approach like the S&I Framework can do well and what are the things that we should probably say there are other mechanisms that might enable that to move more quickly, innovate, and then at some point feed in or coordinate or communicate, you know, there are a lot of different ways. So we are really taking a look very broadly at ways that we can

constantly improve how we can do better, picking the right projects to work on is part of that. And so, I don't have an answer necessarily, but I certainly recognize that there are some things that we probably do better not to engage in right away because others can do that better. And then at some point we may want to track it or we might want to enable it or we might want to help kind of guide it to convergence. We just have to find the right role for that. So, we're having those conversations I just don't have an answer just yet.

Wes Rishel – Gartner, Incorporated
Thanks.

Jonathan Perlin – Hospital Corporation of America
Okay, Walter Suarez?

Walter Suarez – Kaiser Permanente
Yeah, thanks. The two questions I have are related to, one is the lifecycle, you know, looking at the process of each of these initiatives at some point do you expect the initiatives to be sort of completed through the S&I Framework and then handed over to its maintenance process, which presumably are the SCOs and other groups, is that sort of what you would foresee into the future? You know, certainly some of the initiatives are getting close to achieving that point of completion in terms of development and testing and then beginning to get to the maintenance process or would they continue to be part of the S&I Framework for several more years, or how do you see that?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
I'm hopeful that at some point initiatives graduate and go on to do bigger and better things, you know, when it comes to standards, I said this before, standards is not a destination it's a journey, and so this whole notion of a lifecycle and being able to maintain over time is a critical piece. One of the reasons that I wanted to cue up discussions in Q2 and Q3 going forward to think about kind of the strategy that we have for standards, what's the lifecycle, how do we support it, what are the other parts of the ecosystem that we need to make sure have the support that they need. So, I would hope that the S&I Framework, I mean maybe there are principles and best practices that we can promulgate that would be helpful. There are a lot of different ways that we could do that and we kind of, to that point and to Wes's point, we're looking at that and trying to figure out what the right thing is. We haven't kind of jelled just yet, but at some point we'll likely have a conversation in this setting to talk a little bit about that and that's one reason I wanted to get on the agenda that kind of standard strategy. I think it's important to think about.

Walter Suarez – Kaiser Permanente
So, presumably there would be, you know, additional initiatives into the future being added to the list of nine already or as other graduate as you pointed out.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Yeah, you know, we talk about this as a portfolio and you have to rebalance your portfolio, you know, you have to kind of invest in new things and sort of sell off on old things, you know, kind of manage that. And so, as we go through that lifecycle I think that's one of the things that we have to think about and rebalance. Right now we haven't done a lot with launching new initiatives just yet because I think we're trying to, you know, it's a nice time, at the one year anniversary, to sit back and be thoughtful about what works, what doesn't, how can we do a better job with this and, you know, many of these initiatives that were launched came from suggestions and from thoughtful comments that this group had. We had a blog posting early on with this and so there's a lot of the guidance about what needs to happen has come from this group.

I think too the points that we had in the previous conversation about tracking these things to policy, that kind of exercise may help us prioritize what are the next set of things that would be useful to put into the initiatives. So, you know, again I don't have a lot of answers, but a lot of this stuff is in process and I think we'll have a dialog to try to figure that out.

Walter Suarez – Kaiser Permanente
My last quick question and this might be even more difficult to answer. So, into the future what is your forecast in terms of funding to support these initiatives? Is the expectation going to be that the federal budget that will be presented by the administration in later February, would there be expectations of continued funding to support these initiatives for 2013 and 2014 and beyond?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
If I could predict the future I'd probably be in a different business.

Walter Suarez – Kaiser Permanente
We all would.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
I think the most important thing going forward is demonstration of success and being able to sort of leverage the decreasing resources that we've got to the greatest good. And so I think the more we can find the appropriate role for government the more that we can demonstrate that what we're doing makes a difference the better it is going to be to be able to have that sort of communication or the like. I don't know, it's going to be an interesting year with congress and with others, but I think from my perspective the most important thing that we can do is just to continue to demonstrate and to value the work that has gone on among the community and the participants that are there and to sort of make sure that people recognize that and to communicate that effectively.

Jonathan Perlin – Hospital Corporation of America
Thanks, Walter. Let's go to Steve Ondra.

Steve Ondra - Office of Science and Technology Policy at the White House
Well building on some of the other comments, you know, I think that the work that Doug and the S&I Framework group is doing is so critically important and it embodies what this group has always maintained as one of its mantras and I'm going to paraphrase that, you know "you're looking up to the future but keeping your feet on the ground" and I think you have successfully threaded that needle, because a good Framework will allow you to have real world here and now implementations, but also allow the flexibility for future developments, and you're seeing that now, you're seeing real implementations, but also that flexibility that you're not building cul-de-sacs that cut us off from where things will evolve because a bad Framework for technology is something that anchors you in the here and now and doesn't let you move forward.

And, I think that this is a young enough field that some of the earlier comments that if we get too tactical we really threaten creating long-term problems for us. So, I think you're willingness to engage in an approach that I think that takes into account an expanding portfolio with modular approaches that allow you to build has been a critical vision to allow the work of this committee and the potential of this technology space to pay the dividends that we want for the country and so thank you.

Jonathan Perlin – Hospital Corporation of America
Let's go to Leslie Kelly-Hall please.

Leslie Kelly-Hall – Senior Vice President for Policy, Healthwise
Doug, the S&I Framework has been really exciting to participate in. I see a tremendous amount of volunteers that are dedicated every day. Building on the comments of Wes for innovation and also Steve, in the transitions of care team there was a paper as one of the deliverables that came out of that team talking about a vision for the future that would really inform the longitudinal coordination of care committee, so I would encourage that that team look at that paper, it talks about successful transitions of care in the future must include the patient and the caregivers that participate in care other than the

professionals, and really talks about that need of a collaborative care model for a longitudinal care coordination. So, I would encourage the use of that as an informing document.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Thank you.

Jonathan Perlin – Hospital Corporation of America
Thanks. Let's just check any of our on-line colleagues. Is there anyone who would like to weigh in at this moment? Okay, having heard none, Doug obviously a lot of affirmation. I think Dr. Ondra said it terrifically, really so much accomplished, a lot to do, but a very affirmative conversation on this topic. We are going to move to Nationwide Health Information Network and exchange next. Go ahead with that.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Great. So, thanks. So the last thing I wanted to sort of update folks on is some of the activities that are going on with the Nationwide Health Information Exchange. Now, I didn't include it in this particular slide but you've seen it before, when we talk about the Nationwide Health Information portfolio it's those standards, services and policies that support information exchange. We had the Direct Project which has developed new specifications that go into that portfolio and the Nationwide Health Information Exchange is that consortium of people, organizations that have come together that use those specifications to really demonstrate how information can be exchanged.

And so, one of the things that I think is important is that at a time that predates my engagement within ONC we had a number of pilots and demonstrations, and organizations that came to the table to support information exchange, it included a number of our federal partners, it included some state and other agencies. There were some restrictions given the way that it was funded and sort of the authority that was given to us through The Office of General Counsel about who could participate and who couldn't. But one of the things that I think has been important is that this is a critical piece of that ecosystem out there for information exchange and we want this to be a successful coalition of participants. We want to get them to the point where this is something that is enabled in the long-term and has a sustainable model to support that.

And, so if you think about what we've done just in the course of the last couple of years, back in 2009/2010 we really only had about 6-8 different organizations that were involved in information exchange. We had moved from some of the early pilots to what we called production pilots. We were moving them out there to where we were really starting to work on the issues. We have learned a tremendous amount. We've learned about the challenge of doing certification against standards that have lots of optionality.

We created some federal business cases around that and what we've been trying to do over the course of the last couple of months is to really start to look at a path that would allow us to sustain a coalition or an organization like this in the long-term using the standards that are present and create that ecosystem of interoperable information exchanges among private entities and others and so we have been working very, very closely with the NwHIN coordinating committee to establish a business plan and a way that we can move forward that moves us from pilots to kind of production pilots to something that is sustainable over the long-term.

So, one of the things that we've been contemplating is to develop a 501c3, a non-profit organization that will provide shared governance and infrastructure, make sure that we can manage some of the trust issues around interoperability and that can hold participants accountable with the ability to sort of revoke privileges and things like that, provide a common platform for a variety of different kinds of exchanges that use not only web services but SMTP and other ways of doing things, and to align with, but no solely limited to, that initial kind of national role out of standards, services and policies.

And so we have this notion and we've talked about this before, it certainly was work that Dixie did in terms of looking at our portfolio of Nationwide Health Information Network specifications, that they are not all equal, there are some that are ready for national rollout, there are some that are still in kind of a pilot phase, there are some that need a little bit of work to do, and so recognizing that we need to, as we think about that portfolio, there may be organizations and requirements that are important to a region or between different organizations, but maybe not ready for some of that national rollout.

So, we've been working on developing a value proposition that creates cost effectiveness and efficiencies, and creates a way of enforcing compliance and accountability among participants, functions in a scalable way with some of the shared infrastructure, has implementation guides and, you know, we can create an implementation and then exchange with many different folks, and can be used to support some expanded connectivity that is distinctive within the marketplace and provides services that people will value. We've got an exchange transition milestone, a series of things that we're working on that will help us over the course of the next year or so transition to a lean and robust way of kind of managing this over the long-term using this public/private partnership as a way of helping us get there.

I think one of the things, and I had it on a slide, I thought it was included, but maybe I deleted it at the last minute, but I think one of the most significant things that have happened in the course of the last year is that we went back to our Office of General Counsel and we said, you know we've got these standards that we're developing, we're working with the HIT Standards Committee, we've got this consortium of folks that are sort of exchanging information, and we made the argument that the restriction that we had with regard to having the need of a federal contractor or an official affiliation was something that was limiting our ability to get a self-sustaining ecosystem. And so, as of last week, was it last week Mary Jo? Only last week, it seems like a lifetime ago.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
It was Friday the 13th, which turned out to be very propitious.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Yes. OGC has lifted that requirement that there is an official federal contract, which means basically the doors now have been thrown open to folks that want to participate in the consortium of folks right now within the NwHIN. There is no need to have a formal contract. There is no need to have that kind of official relationship, but in fact we have enough governance and we have enough sort of organization within the coordinating committee and the standards that we use, and the rules that we've have that the Office of General Counsel has now lifted that restriction. So, that's an important milestone that I think shouldn't be lost in terms of its significance, it's been one of those things that has been hard for us to work around, but I think it's something that will help us going forward in taking a look at the exchange consortium and the way that they are participating.

We have been ramping up with a lot of the activities that we have to try to create specific implementation criteria and guides that will allow us to test whether or not people have the technical abilities. We've got the DURSA. We have gone from, you know, a year and a half ago, of having 6-8 organizations, we are now, I think, on the order of 22 and we anticipate by the end of the year probably closer to 35 if we look at what is in the pipeline. So, there is a continued engagement along these areas and we are now trying to think ahead towards how can we sustain this now that the restrictions have been lifted, about that federal connection, and working very closely with both our federal partners and the DoD, the VA, SSA, CMS, and then the other partners that we've got with Kaiser Permanente and Med Virginia and others that can help with that.

So, that's just sort of a brief overview. We've got a lot of other discussions that need to happen among the various participants but I wanted to make sure that we had an opportunity, in this group, to have a discussion about that and to certainly tell you the news as of Friday that this OGC limitation has been lifted.

Jonathan Perlin – Hospital Corporation of America
Well, thank you, Doug for that update that is exciting news. Chris Chute?

Christopher Chute - Mayo Clinic College of Medicine
Thank you very much, Doug, and I think most of us would welcome this kind of initiative and flexibility. I think it bodes well for the kind of public/private collaborations that I think many of us have spoken to over time, particularly my esteemed colleague, Mr. Ferguson, that being said, I'm wondering, at the risk of scope creep whether such a model or such an approach could be generalized overall. My anxiety is that over time we end up with a flotilla of such organizations working diligently and presumably in good faith, but nevertheless not as tightly coordinated as one might seek, and if this corporate creation possibility exist at all it begs the question of whether the fabled once and future US realm, in the broader context of the term, could be created in an analogous way rather than what might occur, which is having purpose specific or agenda specific organizations created in this context.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Yeah, and I think to your point, this is one of those conversations, kind of from a standards strategy, as this begins to roll out and we have more participants in these kinds of organizations, does that create more import and urgency with establishing mechanisms that would coordinate across those particular bodies. So, I'm making a note.

Christopher Chute - Mayo Clinic College of Medicine
Thanks.

Jonathan Perlin – Hospital Corporation of America
Let's go to Wes.

Wes Rishel – Gartner, Incorporated
You Doug you've got this nice NPR kind of voice and I was just falling into my usual NPR induced sort of semi-sleep state when you said certification and that woke me up. And, I think that what I'm about to say is not specifically relevant to this topic and if we're going to have another point on the agenda where we're going to talk about certification as it applies to the Meaningful Use program I'll defer it until then, but otherwise I'd like to just make some comments now. Hearing no objection, we need to recognize and give full credit to all the work that is being done in dozens of different organizations and coordinated largely through the S&I Framework, but we shouldn't fall into the myth of believing there's a perfect spec, and a lot of get it going, get it good, get it great is discovering what people are capable of misinterpreting when two groups of very good programmers program to the same spec.

We learned a lot from VLER and there have been a lot of improvements that were folded into the consolidated CDA as a result of VLER. I personally have no reason to believe that we don't have just as many lessons to learn from the next iteration as this, that is just the way of the world, it's no slight on the people who are doing the work whatsoever. One of the issues that I heard related to VLER was that there wasn't a ready means of adjudicating disputes in understanding the standard, just the nature of the contracts and the contractors were involved and the fact that there were multiple agencies led to sometimes an excess of diplomacy.

I think it's important that the techniques we use for certification, which should include end-to-end testing as opposed to just did the system accept the message or not, or send a message that looked good or not, be available precertification publically even if this involves some expense to the government. I think it can be automated at that level as opposed to require analyst time, but nonetheless, I think it's important. It will probably reduce the time people spend getting certified substantially and it will probably, you know, in one case in a hundred, show up difficulties in the certification approach that wouldn't be seen until we began certifying otherwise.

I'm also concerned that I don't know of a lot of interoperability efforts that have succeeded by just having all of the different agencies or entities that are going to interoperate test against the standard, I mean the

standard in the testing state, to use the term, some sort of full matrix testing is frequently required and I think that some program with industry to go beyond what is required to get certified for the strict purpose of Meaningful Use is important if we're going to get to the scalable rollout of interoperability that we need for the actual improvements in healthcare that we are anticipating to happen. Thanks.

Jonathan Perlin – Hospital Corporation of America
Thanks, Wes. Let's go to Jamie Ferguson and then Steven Ondra.

Jamie Ferguson – Kaiser Permanente – Executive Director HIT Strategy & Policy
Yes, Doug, thank you very much, I really appreciate your presentation. One of the questions I had is you mentioned earlier the plan to promulgate rules or to go through rulemaking process for the NwHIN governance coming out sometime later this year, but then you also talked about the business plan to develop a private 501c3 and so forth. So, what's the interplay of those things? I mean, was the regulation intended to govern the 501c3 or how does that work?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
I think, you know, one of the things that we did, and this was something that the HIT Policy and Standards Committee participated in about 2 years ago, was really trying to get a handle on what the Nationwide Health Information Network was, and we sort of all agreed that it wasn't kind of a physical network, but what it was, it was the standards, the services and the policies that would enable us to use the internet to exchange information securely. So, when it comes to governance, it's governance around the Nationwide Health Information Network with respect to the standards, the services and the policies that we would have. So, the intention isn't to have the governance rule govern this particular 501c3 for example, but to think very broadly about the standards, services and policies, how do we make sure that we've got appropriate input, that we've got appropriate conditions.

I know that one of the things that we've learned in the consortium of folks that have participated in the Exchange is that it is a challenging task to do this, that there are both conditions of interoperability that people have to meet, you know, there is conformance to the standard and then there is recognition, I think to Wes's point, that not only can I generate a conforming say transitions of care document or C32, but I can carry on that conversation that says I send it to you, you acknowledge that you received it, if you didn't get it correct I can send it again, having that kind of, you know, dialog if you will.

And certainly, within the on-boarding tasks that we did within the Exchange that was one of the things that we clearly looked at and certainly we could do a conformance to the standards and test a product, but we had to be able to create harnesses that would do that dialog and then we also had to sometimes say "when you install it in your particular site this is how it has to be configured, otherwise it isn't protected and secure and things like that." So, there are conditions that are technical but then there's also conditions that are related to trust. So, do you have appropriate policies for brief notification? Do you have the appropriate policies that protect the data if you are going to exchange that or if somebody sends you something? And, so we've learned a tremendous amount. That learning has gone into the governance rule but it has been focused not so much on a particular organization, but instead on that standard, services and policies as we've defined it.

I think it's going to be very, very helpful when we have that governance rule come out, have some time within this committee to sort of talk about it and, you know, there is a series of questions that we have and we'll need to get some feedback from this group to help us direct and focus what would be helpful for the country.

Jonathan Perlin – Hospital Corporation of America
Thanks, Doug. Steve Ondra?

Steve Ondra - Office of Science and Technology Policy at the White House
Yeah, I'm glad that Wes wanted that clear, because he mentioned VLER and I just want to take an opportunity to clear up, you know, public comments and very common misconceptions of what the

Department of Defense and Department of Veterans Affairs Virtual Lifetime Electronic Record is and is not. It is a strategic framework to make data available for the whole variety of benefits available to our service members and veterans that is composed of a series of tactical approaches to achieve a strategic goal. The first tactical approach was using the Nationwide Health Information Network in the query response mode that is just a first of a series of tactical approaches. It is often conflated then to think that this is VLER and that is not VLER. That is one of the tactical pieces of VLER. NwHIN Direct is also a piece of that and integrated electronic health record is also a piece of that, electronic benefits, portals are also a piece of that and all the data streams that go with that. So, it's very important, you know, to clarify, you know, for anyone who is listening.

The reason that the first tactical step was on the Exchange was because that was the only thing available at the time, Direct didn't exist, Blue Button didn't exist, there was no integrated electronic health record, there were no eBenefits portal, and oh by the way this committee and the Policy Committee were only a twinkle in David Blumenthal's eye, you know, so please don't have anyone confuse any of the tactical pieces of VLER with VLER itself. It's like confusing a tire with a car. So, that's just to help clarify for people that may be confused.

Jonathan Perlin – Hospital Corporation of America
Thanks, that is helpful in terms of how we draw up analogy. Let's just take a quick check if anyone on-line wants to weigh in, otherwise we are going to move forward. Okay. Terrific. Doug this is a masterful update, a lot of generative conversation, obviously a lot of affirmation on direction, a huge amount of accomplishment and a huge amount of work ahead. So, we'll hear back from you, but thank you very, very much for that component. Anything that you want to add before we move to Jim Walker on the Clinical Quality Workgroup update?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
No, I just want to thank again the community and this committee for all of the tremendous effort and work that they've done. Jim, I think is on the phone.

Jonathan Perlin – Hospital Corporation of America
That's correct.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
So, I will run his slides for him.

Jonathan Perlin – Hospital Corporation of America
Sure.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Virtually.

Jim Walker – Geisinger Health System
Thank you, Doug and good morning everyone. This is an exciting opportunity to report for me. ONC is taking a new and deeper look at quality measure development and management and what I'm going to be reporting on is the very first steps in that. So, if we can thank again the members who have worked so hard and helpfully in what has sometimes been a confusing environment. Go onto the third slide then.

So, in the context of ONC wanting to bring together into a more coherent lifecycle of developing standards that would meet the needs of people who create quality measures who try to put them into electronic tools and then who try to actually make them work in their care delivery organizations, ONC is looking at the committee and thinking about how we want to nuance it's charter, it's membership, it's work plan so that what we end up with, by the end of this calendar year I think, is a much clearer way of working, a better set of coordination activities with the Policy Committee, and then a regular stream of

work products that make the work of all the people that are trying to create and execute quality measurement more effective.

So, the first bullet just addresses that more careful and iterative, and conversational coordination with Policy Workgroup. I think a useful way to think of it is that policy is responsible for identifying and setting into creating the development of useful measures and the Standards Committee and the Workgroup will be responsible for creating the standards framework that makes those measures usable.

So, then the next three bullets on slide three are the first questions the committee will be addressing. So, what are the standards for defining quality measures? How do we create standards that will enable efficient regular development of useful value sets, vocabulary value sets, and then a much deeper problem and set of questions, what entities should use what processes, validate, provide and maintain quality measures and value sets, so this is back to Doug's sort of strategic framework about moving from an initiating set of activities to groups that will maintain these processes and tools over a long-term.

Slide four is some more questions we'll be addressing. How will the work that we do on quality measures be aligned with information management for clinical decision support and I think also, although it's not on the slides, for care coordination both of which have the same sorts of needs that value sets can help meet. So, we at least want to explore how our work on quality measures impacts clinical decision support and care coordination in the sense that very often clinical decision support and care coordination are sort of the front side of quality measurement, if you know what you need to measure than you know what you need to decide and coordinate.

And then finally, what were the standards needed to make extraction and export of data for quality measure computation something that is standard, that is affordable and becomes something that works well for HIT developers and care delivery organizations instead of imponderables. So, the next slide I think has our timeline.

Our first meeting is going to be sometime before February 15th, I think what we're going to do, obviously in the first meeting, is review the charter which Jacob and I have been reviewing and trying to rewrite to meet this new set of opportunities in a really effective way. We need to talk about membership to make sure that we have, in addition to the current excellent membership, that we have all of the skill sets and perspectives that we need including obviously patient and consumer perspectives so that our work misses fewer of the connections and needs that we need to address, and then we'll be reporting back to you in the March meeting on our first steps. So, that's all I have. I'd be glad to try to benefit from your feedback.

Jonathan Perlin – Hospital Corporation of America
Thanks. Let's open the floor for any comments or questions. I don't know, Doug, is there was anything you wanted to offer at this juncture?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
The only thing I would say is just to thank Jim for stepping up to the plate and his leadership in this area it's going to be, I think, a tremendously valuable set of activities that as I sort of talked about at the beginning with our agenda, I think will spawn other activities in other working groups as they wrestle with some of these challenges.

Jonathan Perlin – Hospital Corporation of America
Thanks and you know, just by way of process a lot of the questions that Jim has teed up or questions that each of you in prior meetings and in the course of discussions through Workgroup have essentially funneled into this body of work and so let me add my appreciation to Jim, Karen and the entire Workgroup, Floyd really for the hard work in addressing this set of issues. Floyd?

Floyd Eisenberg – Senior Vice President of Health Information Technology – National Quality Forum

So, I very much appreciate the agenda for the group and I think it will help move a lot forward. I would suggest that we talk about value set work, perhaps there needs to also be some governance in registry thought about the data elements as well, meaning the value sets coupled with their context of use, because each value set might have multiple contexts that it's used in, but being able to do those I heard a lot of discussion requesting that kind of ability to look at a registry for those for decision support and other use, something to consider in addition.

Jim Walker – Geisinger Health System
Thanks.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Thanks.

Jonathan Perlin – Hospital Corporation of America
Okay. Well I think that's a great uptake and Floyd that was the perfect segway actually as you note the next conversation because this really is about vocabulary and value sets for Meaningful Use and it looks like a large part of the discussion focused on Nationwide Information exchange, but the context relevance of value sets, quality measures is indeed called out as one of the particular areas. So, thank you for teeing that up so well and we welcome back the NPR voice, that's a compliment by the way, to Doug Fridsma and I don't know if your joined virtually by Betsy Humphrey or others.

Betsy Humphreys – Deputy Director – National Library of Medicine
Yes, Betsy will be there at the time.

Jonathan Perlin – Hospital Corporation of America
Fantastic, thanks.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
A voice that soothes like Sominex.

John Halamka, MD, MS – Harvard Medical School
Well we want to thank Doug for truly standards, all things considered.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
I don't know if I like where this is going. What I'd like to do is I'm just going to provide just some brief context about kind of our portfolio. This is a presentation that Betsy and I gave to the HIT Policy Committee and so I wanted to include these slides for people to have an opportunity. I'm going to go very, very quickly through the slides that I have. They are really less important than the meat that Betsy will have at the end, but I think it's a way that we're trying to talk about our portfolio and how that all works and I've said this before, you know, a year ago we couldn't really talk about what this would look like because it was just a glimmer in our eyes and we had this notion that we knew we wanted to have building blocks that we could put together to solve problems.

I think a year into this we are starting to have what those building blocks look like and I wanted to step through in the next couple of slides a use case that sort of illustrates how I think that this is important and then turn it over to Betsy for the real meat and important work to say one of those critical building blocks is going to be vocabularies and value sets, and some of the activities that Betsy has been doing at the National Library of Medicine to help support that.

So, at the risk of being redundant and having this in every single one of the presentations that I give, there are three things that we do in my office, we enable stakeholders to come up with simple shared solutions to common information exchange challenges and that is really the enabling rule that the S&I Framework helps us with, we curate a portfolio of standards, services and policies that accelerate the

information exchange that is really this Nationwide Health Information Network portfolio, and then we enforce compliance with validated information exchange standards, services and policies to ensure interoperability between those validated items and that's really our certification program and to some degree the work that is going on within governance as well.

And so, one of the things that I wanted to sort of step back is we went through and we took a look at, and this isn't perhaps a complete list, but we tried to break up the building blocks that we've got. So, if you think about it we've got vocabularies and code sets that have been recommended by the HIT Standards Committee and the working group with vocabulary. We have structure, content structure in the form of the consolidated CDA, quality reporting, laboratory results and the HL7 2.5.1 standards. We have a couple of transport standards that Dixie and her team on the Nationwide Health Information Network Power Team looked at both the SMTP Direct based exchange as well as the web services or the SOAP based approaches that are used by many members of the exchange.

We have security standards, the X.509 digital certificates and we use SAML assertions as part of the way in which we assure that the folks that are issuing queries have the right credentials. And then we have a whole series of services. We have certificate authorities; we have the DNS and certificate discovery. We have something called the UDDI and that's the way that the exchange members actually find services and distribute certificates. And then we've got work that is going on within the S&I Framework about provider directories.

So, if you look at our portfolio, you know, there is probably a limited number of services, there's probably a very few number of security kind of standards that we would need for exchange and that we would probably grow that out as we have cloud based and software as a service and things. There are probably not thousands of transport standards, but there is probably on the order of, you know, 3-5 maybe 10, I don't know we'll have to see, content and structures, we have certainly more of those. Those represent document types and different transitions of care that might fit into the work process. And obviously, and I think there is beginning to be clear understanding that with vocabularies and code sets we're probably going to have a lot of those we're going to have a lot of different concepts that will be defined in that.

So, what I wanted to do is just sort of step through a patient scenario. This is probably not a patient scenario that is unfamiliar to clinicians out there. So, a primary care doctor orders a laboratory test and gets the test results back from the lab. She schedules the patient to be seen in the office to discuss the results. Based on the results of the test the primary care doctor then decides to send the patient to see a subspecialist. She sends a summary of care record to the subspecialist electronically with a summary of the most recent visit and then when the patient sees the subspecialist it becomes apparent that there is a missing test that was done at a different hospital that would really be helpful in trying to figure out what to do in terms of taking care of that patient. So, rather than repeating the test the doctor then will query that outside hospital for that laboratory test that she would need.

So, if you think that through, sort of three steps of the process, the physician orders an outpatient laboratory test on the patient and then the lab sends that information to that doctors office, the patient is now there to discuss the results. And what that looks like, in our portfolio, sort of hypothetically if you think about this, is that you would need a LOINC code to describe the laboratory test. You would use the laboratory results implementation guide or the HL7 2.5.1. You could use Direct to take that package and send it from the lab to the doctor's office and you would secure that with the X.509 digital certificates and using the certificate authority and the ways of finding that. So, that first part, if you're going to use Direct to be able to send that information requires vocabularies, it requires a content specification, it requires a transport mechanism, and it requires the security infrastructure to make sure that we assure that the privacy and security is maintained.

Now, based on that laboratory test result the doctor decides to refer the patient to a subspecialist. So, she sends the subspecialist, she knows who that person is that she is referring it to, sends them a summary in anticipation of this visit, this is a planned visit, we know who that information goes to. And, so in this situation, you would want to use one of the CDA care summaries, that content structure and you would populate that with SNOMED CT codes that would describe perhaps the problem, LOINC codes

that would include the laboratory information that you would need, and then perhaps the patient is on medications and those would be represented in RxNorm. What I think is important to recognize is that for this particular scenario the transport and the security are the same, but the content and vocabularies have changed. So, what we've done is we've taken this portfolio, we've said there are reusable parts about transport and security that we can use for both of those scenarios, but we need to have specialized ways of creating the care summary and documenting that and different vocabularies, a broader range of vocabularies to describe that clinical scenario.

Now, when that patient then is seen in the subspecialist's office it becomes apparent, and those of you who are clinicians this is a common occurrence, you see the patient you think you have everything you need and the patient says something and you say "oh there's some information" maybe it's an imaging test, maybe it's another laboratory test or something that was done elsewhere that you don't have available to you and how many times haven't you sort of left the examination room, gone to your nurse said call up this doctor and fax me the information and I hope it comes in time before the patient is in the parking lot headed home.

But in this scenario as we sort of think about our portfolio we have another stack that we would pull from these building blocks. So, in this situation maybe what we have is we have a problem list from an administrative code that is in ICD-10. We then can use the laboratory results, but this time rather than using a Direct exchange we have a web services query response, have SAML assertions, we use our certificate discovery infrastructure to find that using the UDDI and the like, and what's important here is that we've got similar vocabularies, we've got similar contents that we've used in some of our Direct exchange around lab, but now what we're doing is we're using different mechanisms around transport. So, we're using that same vocabulary, we're using that same content and structure, but we're doing that in the setting of a different way or a different paradigm, this query response, so it uses different transport mechanisms, different security frameworks around that as well, although you'll see that the 509 digital certificate is shared as well.

And so, what we're going to talk about with Betsy, and this will be the more important discussion, is around the vocabularies and code set, this layer of that interoperability stat, but what I wanted to be able to try to articulate, and to get feedback from this group to see if this makes sense, because a year ago we couldn't have put this diagram up there and stepped through a use case about how a patient is seen and what that would mean for the portfolio, but now we're at a point where we can begin saying, there are vocabularies that we can reuse across different use cases. There are transport standards that we can reuse and even with this limited set of building blocks we can configure it to be able to be responsive to the laboratory test using Direct, conditions of care using a Directed exchange, and then laboratory results exchange using the NwHIN kind of query response mechanisms as well.

And so, as we go forward this year and in January I thought we'd get this out there and have people start thinking this through, I anticipate and we've heard this from our federal partners as well, we need to start helping people implement these things by saying if you want to support laboratory exchange using Direct that has coded terms here's the vocabularies you use, here's the package that you use, here's the transport mechanism and here's the security, and we need to provide that as a package that says here's a solution that's got all of that information. Now, we need to move from having those building blocks that are laying out in the field, we need to sort of assemble those and this is kind of our first attempt to begin talking about how you would assemble those solutions together to support particular use cases but to do it not in the abstract, to do it in terms of what we need to do to accomplish good patient care. So, I'm happy to answer any questions about that but I would otherwise turn it over the Betsy. Oh, it looks like Dixie has a question.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I didn't mean to interrupt and I'll wait.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
No go ahead, why don't you ask the question and then I'm going to turn it over to Betsy.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Okay. It's probably not a Betsy question anyway. I notice on slide 12 that UDDI is there as a service and I'm curious about that because, you know, neither the Power Team's work nor the public comment that followed showed that hardly anybody is using UDDI, that specification, almost nobody, in fact I only remember one from the public comment that does. So, I'm kind of curious to see that it's there.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
The reason it is there is that the current participants in the Nationwide Health Information Exchange, the way that they are doing certificate discovery and service discovery is using a UDDI server.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
So, this is kind of reflecting the pilot that currently exists and not where NwHIN is moving toward?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
This is a reflection of what we currently have and there is actual exchange going on right now that uses this UDDI server, but I think that doesn't.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Only when they're required to, I think that's the data that are coming back to us you're saying.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Right and this is not a reflection of sort of where we need to go necessarily. I think it's really trying to capture, as an example how that might work.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I get it. Thank you. Thank you.

Jonathan Perlin – Hospital Corporation of America
I want to keep the thread of this conversation going, so let's get some very focused comments and we'll go quickly down the line. Wes we'll start with you.

Wes Rishel – Gartner, Incorporated
Yeah, I have to admit that my concerns about SAML and UDDI are really about how extensively they're used and how good our experience is. For example, in testimony we had about SAML based validation, I'm using the wrong terms here, but using SAML to determine who should see what data, there seemed to be a part of the national implementation scheme for it that said, oh everybody will have a common view of the roles of providers in their institutions in order to be able to create SAML insertions and that scared the…, we can't get that in an institution largely. If we have operational experience that says, well these large institutions are able to do it with a very limited idea of what the attributes of someone is then that is much less of a worrisome capability than I'd be concerned otherwise. Again, UDDI, people have done what they had to do to get it to work and that's great, but is that the right thing to roll out? Now, if you're talking about 35 institutions by the end of this year that's not the scale up that we've been thinking of so it's not a concern, but in the long-term I think we still need to look at those issues.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
So, what is interesting is that I gave this presentation to the HIT Policy Committee and after I was done there was silence, because I'm sure people had the detail. Frankly, what I'm hopeful is that in this particular setting we won't debate the value of UDDI versus SAML, versus DNS and LDAP, and things, because we've got a lot of input about things. What I sort of started out was saying is that we have to try to figure out how we get from building blocks to implementation and how we can communicate the

effectiveness of that. So, I'm really wanting to make sure that we have a way of talking about these things that people understand we've got building blocks to get assembled and the like.

The fact that we've included SOAP and the web services, and the UDDI is not a reflection of the merits of that versus something else. I think it's a reflection of the reality that we've got active exchange that is going on among the exchange partners that are using web services, SAML insertions and UDDI, and I think we will have a continued dialog and it's the kind of work that Dixie did around the specifications within the NwHIN to make sure that we've got the right building blocks out there. But this was really an attempt to kind of illustrate and we've got other scenarios that we're working on that we're partnering with SSA and with the VA, and others to really help illustrate what this strategy looks like in terms of having those building blocks and the like.

And frankly, if it turns out that there are services or if there are vocabularies, or if there are transport mechanisms that are missing and I'm going to steal John's thunder, because transport doesn't include REST, we don't have a RESTful transport mechanism, but if we had one we could put that in there and we could describe how that might work as well. And so it's an effort to sort of begin grouping together in logical ways these building blocks to accomplish particular tasks. And these are illustrative not sort of canonical.

Jonathan Perlin – Hospital Corporation of America
Great clarification.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
Can I just make one more point, I understand what you're saying but I don't want to see us step back from work we've done, you know, and Wes was on that team and I've since then reviewed, you know, our public comments and except for SSA, you know, nobody's using SAML or UDDI basically, especially UDDI, few more SAML, and I think that I would like to see your chart reflect that.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
So, that's great feedback and what I'll do is we'll circulate this and you can help me update it so that it's more reflective.

Dixie Baker – Science Applications International Corporation – CTO, Health & Life Sciences
I would be happy to, thank you.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Okay.

Jonathan Perlin – Hospital Corporation of America
Thanks. Let's continue on the theme of the building blocks. Jamie, brief as well because I want to make sure that we'll all have a chance.

Jamie Ferguson – Kaiser Permanente – Executive Director HIT Strategy & Policy
Yeah, thank you, I just wanted to focus for a minute on sort of the precise mechanism for assembling the building block for the vocabulary services. You know, in the vocabulary taskforce in our previous work we had several days of testimony, one of the things that we heard repeatedly was a call for there to be an API mechanism for calling on vocabulary services and yet when we went back and circled back with a lot of the actual technical experts and the vocabulary groups at NLM, and the vocabulary standards groups it wasn't really clear how to develop such an API without understanding the precise use cases. And so, I appreciate that you've laid out a particular use case here but it seems to me that there is some more work that needs to be done to lay out more detailed use cases, a variety of things that would better define the scope for the use of that API so that it could be developed.

Jonathan Perlin – Hospital Corporation of America

Okay, Cris Chute, okay directly on that point.

Christopher Chute - Mayo Clinic College of Medicine
Very quickly, I agree, Jamie, and as many in the room are aware there are generalized services specifically a common terminology services to, which is now an OMG standard as well as ISO and ANSI, that can address a lot of this functionality and I think it would be regrettable if we had use case specific interfaces developed. I think it would be highly desirable that we really leverage standards that exist.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Thanks.

Jonathan Perlin – Hospital Corporation of America
Let's continue on with Steve Ondra, Cris Ross and Floyd Eisenberg.

Steve Ondra - Office of Science and Technology Policy at the White House
Yeah, just following up on the building block discussion, you know, I would hope that these theoretical examples can be complimented by real world examples of how the building blocks are being used. What I hope the committee doesn't do is make and assumption of value. So, I would hope that's the role of the marketplace and that this committee will put out, here's building blocks, here's some examples of how they are used in the world, here's some theoretical examples of how they could be used in the world and let the marketplace sort that out. So, you know, whether it's Blue Ray, DVD or X, Y, Z that's not something that I think we have a role in determining which is the winner so much as providing those options to the market and letting the market sort that out.

Jonathan Perlin – Hospital Corporation of America
Thanks, good counsel. Cris?

Cris Ross – Executive Vice President & General Manager, Clinical Interoperability SureScripts
So, I want to go back a little bit to what Dixie was talking about. Doug, I think you said, in response to the UDDI and SOAP based, you said "well if we had a REST service we would show that there too" and I think we don't have a REST service in there just artificially, frankly. When the NwHIN Power Team, under Dixie's lead, looked at that this last summer, you know, we were asked to limit our building block evaluation, correct me if I'm wrong Dixie, to Direct and exchange for lots of good reasons, but I think our committee observed the industry and said, in fact there's enormous amounts of exchange that does happen using REST based standards.

And it remains a mystery to me why we haven't been able to find an on ramp to include those REST based standards in our evaluation in various places. I don't think that there's any intent to exclude it, I just don't think we've found the right on ramp. So, specifically in lab space, I mean there is, you know, a large number of lab exchanges that happen every day, millions of them using REST based technologies and REST based technologies run the internet. So, specifically I think the reason why it is not up there is, you know, at least from the NwHIN Power Team's perspective, I think it was because we were asked not to specifically look at it because it wasn't in scope. More generally I would love to figure out how do we include REST based commercialized industry standards in some of our evaluation about transport.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Yeah, and one of the things that perhaps I can report on in a couple of months, working with the Federal Health Architecture FHA and many of our federal partners there actually are some initiatives being led by that group to look at RESTful ways of doing this and to essentially help add to those portfolios. There are challenges with certification. REST is not really so much a standard as sort of a design paradigm if you will and so that makes it a little bit challenging. There are some security concerns that Dixie and her team have raised before as well, but I only raise that because this is illustrative, it's not the kind of end-all and be-all and we've got some activities that we're trying to address. The recommendations that we got from

this group to say we need to do some thoughtful work in the RESTful approaches and so that work is ongoing, it just got kicked off.

John Halamka, MD, MS – Harvard Medical School
Hi, Doug, the work of MITRE on hData certainly would be one implementation guide of REST to the exempt.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
And MITRE is the team that is leading the work with FHA.

Jonathan Perlin – Hospital Corporation of America
Thanks, John. Let's go to Floyd Eisenberg.

Floyd Eisenberg – Senior Vice President of Health Information Technology – National Quality Forum
Okay, so I think maybe one of Wes's voices is now in my head and telling me that we should start riding the segway to Betsy's presentation, what I see and hear is the challenge of putting too much information on a slide, that wasn't meant as a criticism, which generates a lot of discussion because I could say "well why do you use ICD-10 in one place and ICD-n and LOINC in another for the same lab test?" But that's not the issue, I think what we want to talk about is we've noticed some quality measures with the work NQF has done and I know you mentioned Blackford Middleton who has noticed in decision support its value sets that are the atoms that make the molecules that have to get you there and I applaud you for creating a real clinical use case where that value set, the same one that might be in a measure of CDS is also in a clinical need, and so all these use cases have the same need and there are the atomic value sets. So, I look forward to Betsy's presentation.

Jonathan Perlin – Hospital Corporation of America
We owe you one, a great segway. I think there is an important theme that has come forward here and appreciate Doug the qualification, illustrative not canonical and that there is work in each building block, but I don't want to lose that thread Floyd because it's so important, is the ability to articulate this constellation of building blocks toward a real world use case is a huge amount of progress, that said, I think the feedback of the committee was I think wise, select list and use case doesn't singularly constrain the building blocks, but building blocks facilitate use cases, and with those qualifications I think it's a great platform on which to launch the additional work. With that Doug, I'll turn back to you and/or Betsy.

Arien Malec – RelayHealth Clinical Solutions
Sorry, Jon, this is Arien, I just have one question before we do this, before we go to Betsy.

Jonathan Perlin – Hospital Corporation of America
Arien, go ahead.

Arien Malec – RelayHealth Clinical Solutions
And I'm actually torn between eagerly awaiting Betsy's presentation and wanting to pile on to Wes and Dixie. The concern that I have with the building blocks approach, as it's currently expressed on the slide, is that the current set of building blocks, the set that was evaluated by the Power Team and is currently manifested in the Exchange was built for a world in which it was presumed there would be 50 some nation or national HIOs, one for each state and then a few federal partners, and as I've noted to a number of people we're headed for a world where we have one exchange partner per accountable care organization and so we've got at least an order of magnitude more exchange partners and in that world the building blocks, particularly the UDDI and SAML as both Dixie and Wes have noted, just don't work to achieve the scenario and one of the dangers in putting a slide together like this is that you're glossing over a lot of the execution range of detail where the picture is exactly right on, this is the world we need to create, but the building blocks, you know, you can only stack them so far before they tumble and fall and they don't reach up high enough to, I'm extending my metaphor a little too far, but the building blocks don't get you where you need to go to reach the picture and I'm putting maybe a little sharper edge on it

than Dixie and Wes are or did, but I want to note that in my judgment and my technical judgment you simply cannot get to the world that we need to create with the current set of building blocks.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
So, thank you Arien. What I'm hopeful and the reason I wanted to put this slide out here is that I preferenced sort of all our conversation early on, is that we need to be able to articulate out there to the folks that are going to be implementing how this is supposed to kind of be put together, you know. And so, I wanted to get feedback from this committee and obviously you guys are very generous with your feedback as always.

Arien Malec – RelayHealth Clinical Solutions
Yeah, we don't lack that, yes.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Because I want you to help me, sometimes when you're really close to something you think you can communicate it but it doesn't always come out the way you'd like it to, and that's why I rely on you guys to help me to communicate that more effectively. So, my purpose in describing this is not to have a discussion about SOAP, SAML, UDDI, Direct all those other things, that is not the purpose of this. I have learned something that if I put that out there on this group you will drive down into the weeds and into the chlorophyll on the leaf in the tree of the forest, but that's good feedback.

And so, I need to find the right level of granularity that clarifies without creating additional confusion and so I'll rely on you guys to help me and eventually we'll get to the right angle of repose, if you will, in terms of how we talk about this, but that's my goal and there may be other use cases, there may be some quality ones, I just want people to start thinking this through because I think it's such a fundamentally and important aspect of our ability to communicate the value of what this committee and what the people around the table here have contributed to sort of that national discussion.

Jonathan Perlin – Hospital Corporation of America
Yeah, I think that really tees up for us, an action item, is that having identified potential limitations, Arien I think really…on us to say with some degree of specificity what's missing and where and why? So, let's take that, we're not going to resolve that on-line, but I think the ability to contemplate a set of elements that converge to make use cases possible is highly important. And let me just say I think there is a lot of affirmation of concerns that sees really use case is constraining and that really wasn't meant to be the directionality, but rather the possibility created by the portfolio elements. So, let's put our heads together on those portfolio elements and some concrete feedback. With that, Doug I'm going to turn back to you and/or to Betsy.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Betsy, it's all yours. We're on the NLM vocabulary portfolio slides, slide number 14 and I'll just turn it over to Betsy, who let me just say, has been a tremendous partner in really helping us to articulate vocabularies and value sets and the activities there. Her and her team have had, you know, a tremendous amount of input into this and we, as part of some of our work that we did early on, have established a memorandum of understanding what's called an interagency agreement and have had some funding that we've provided to Betsy to help us sort through some of these sticky issues and this is really an effort to include you in that loop and to see some of the great work that Betsy and her team have been able to accomplish. So, with that, Betsy?

Betsy Humphreys – Deputy Director – National Library of Medicine
Thank you. I think that this slide might have been more informative to the Policy Committee or some members of it than it is to this group. I think most of you are aware of the range of activities that NLM is engaged in that relate to vocabulary and so I will not go through all of this. I will comment that obviously,

when I report on these activities I'm reporting the work of a great team of people who have undertaken all of these activities. If you want to move to the next one, Doug?

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
Yes, I'll just advance slides as you go.

Betsy Humphreys – Deputy Director – National Library of Medicine
Okay, fine. So, Doug referred to this agreement which we reached, entered into in Fiscal 2011 and essentially what it is doing is setting the framework to establish the priorities for our work that is directly in support of the objectives of Meaningful Use and related activities and the agreement in general refers to the categories of activities that are listed here, that is additions or changes to RxNorm, LOINC and RxNorm that might be specifically responsive to issues or are helpful to those implementing for Meaningful Use. The creation of high priority subsets and mappings again desired to aid those who are moving to Meaningful Use.

Issues related to the vocabulary, value set, development and maintenance, and enhanced APIs, and this was referred to before and of course Cris will be glad to hear that the agreement focuses obviously on the use of existing standards, if those are indeed in use in the community, and Jamie keyed up the issue here that we do have, regarding APIs which is really trying to get, and I think maybe the vocabulary taskforce can pursue this, trying to get a clearer picture or maybe you all can help us of what kinds of uses are going to be made at the APIs by what groups? That is for example, are people going to use APIs as a more sophisticated download site? That is when there is an update to something they're going to go once and take it or are there certain types of activities where they're going to want API access on the fly for individual transactions? We have some experience which I'll relate later when I'm talking about RxNorm related things in that area, but we're really interested to know, you know, what are the main ways that people want this and for what particular purposes? So, we'll be interested in additional input on that and the agreement is dealing with the priorities overall and then it provides additional funding to NLM that supports some of the activities that we've identified. So, if you'll move on.

In the problem list area talking about slides that have too much information on them. There are many challenges in terms of the problem list; the target that we're concerned mostly with is SNOMED CT. I identify two of the special challenges on here which is essentially that a number of people are in the mode of migrating from either uncontrolled terminology or local terminology, which might have some level of control with it and/or the use of ICD-9 CM, and they may also be wishing to extract in some sense problem information from free text notes, and of course there is the implementation of 10-CM in 2013. So, I will not go through this list of existing assets that are available to people, all of them, but I will mention a few of them.

I think that you're probably all familiar with the core problem list subset, which is being regularly updated as each new addition of SNOMED CT and the UMLS come out. We are not the only source obviously of Lexical tools that might be used in these activities, there are a number of excellent open source tools and some of the people in the room there helped develop them, but we do provide tools that are available for that. Thanks to Kaiser we have now six deliverable sources of problem subsets of the convergent medical terminology totaling more than 13,000 concepts and those are available from us for people who wish to use them now and vendors who wish to use them.

In the mappings area there is the existing SNOMED to ICD-9 CM which is a conceptual map and it is issued regularly with the international release of SNOMED CT. We are working, for those who might wish to have some assistance, in moving perhaps from the use of ICD-9 CM as a problem list vocabulary to SNOMED CT. So we're working on a mapping that would go in that direction using frequently used ICD-9 CM codes as identified from data for both ambulatory care and inpatient care that we've gotten from CMS. And my expectation is that we will have that, an initial trial version of that, this spring, exact date not known.

We are working on a rule based map that would also assist with semi-automated mapping from SNOMED CT to ICD-10 CM and this effort is very active now and we expect to release the initial subset about 2000 SNOMED CT to ICD-9 CM mappings with an associated viewer application so people can see what we're doing here in February, that is next month, and to have a mapping that would cover about 15,000 SNOMED concepts by June of this year.

There is a US extension to SNOMED CT that we are issuing and now a US SNOMED CT content request system where anyone in the United States can use that to request additions to SNOMED CT. There are obviously requirements on those who submit the data to provide useful information so it's not a no work off proposition. The initial version of the system I think became available last fall and very recently we have released an upgraded and better version of this which has been receiving some good comments, so that is available.

We provided download sites for all of these content sets and we do have UMLS enhanced API access to SNOMED CT. The API that is through our UMLS terminology services is not yet compliant with the standard that Cris referred to. It has some necessary functionality because of the UMLS requirements and the use cases that people have for downloading from the UMLS that are not actually well covered by the standards, but the access to individual vocabularies we think probably the major use cases that people had should be efficiently covered by the standard and that is one of the reasons why want the use cases and then we can make sure that's the case and implement that as another interface.

Obviously, there are really a lot of services available in the market to address a point that Steve Ondra made earlier. There are vocabulary services vendors, there are EHR developers and there are also some open source tools and sites that are available with relevant value added products and services that would, you know, help address the challenges for the problem list. I would move on now given the time.

So in the medication area I again won't go through everything, but just to comment that RxNorm has a monthly release that includes the complete release and has the features that are listed here. I have put red asterisks beside some that have been added over the last year or so expressly in response to comments that we received from the vocabulary taskforce and the clinical quality working group and others testifying before the vocabulary taskforce. In the area of this drug terminology, this is the area where we have a lot of experience in terms of on the fly use of the API that we provide to RxNorm, NDC data, other related drug information sources. NDF-RT is provided through this as well. And as you would not be surprised the most popular thing, call against this server is when someone is attempting to go from an identifier they have normally, I mean most usually an NDC code, but not always, it could be another identified code, to get the RxNorm identifier so that they can incorporate that into we assume some system. We've looked at the categories of users of this service and there are a number of healthcare organizations and EHR vendors involved, although obviously, as many in that room would know, there is also heavy use of this by the research community clinical and translational research community because they can use data from this RxNav server to assist them in aggregating drug data across existing files of patient records and others that they might have.

And we also have a feature here which is to essentially allow people to determine whether an RxNorm identifier that they might have existing in some system or in some value set for, you know, for a quality measure needs to be remapped to a newer one and we have a feature that we built in actually I think it was first asked for by the Indian Health Service in order to accommodate that. Again, drug information providers and other vendors have a number of value added products and services that would assist people in moving to include or to make use of RxNorm in their current context if they care to do that. Doug, can you move to the next one?

In the test and measures area I think that obviously, as has come up in this group and other groups before, people have known for a long time that what would really help people a lot would be if the labs were using the standard and therefore it could be used in interactions with the labs but it also would be reported back and therefore be available from the get go when you've got the lab report without any work on your end. There really has been some significant progress here I'm happy to report in terms of the number of labs and lab groups that are doing the mapping to LOINC, so that's excellent. And in this case

there are a number also of resources available from the Regenstrief Institute and new within the last year or so anyway are these, I think very useful, starter sets for the top 2000 plus lab observations with a mappers guide about how you get from what you have to these and also the much smaller common lab orders, value sets.

There also are subsets of LOINC that relate specifically to test panels and also to heavily used assessment forms including those that are rarely used for example by CMS or required use in long-term care facilities and so forth. And then there is a tool for mapping. There is not yet API access to LOINC and there is, as far as NLM and the Regenstrief is concerned, there is no prohibition providing it and again this is an area where I think we would like to start by having a clearer picture of what the primary interests are in terms of getting API access. Again, you know, sort of is it periodic download, is it interactive and for what use cases? And again, we have others providing value added services in this, which is great. Doug?

So, in the area of public health reporting, in general we're dealing with at least two target standards LOINC and SNOMED CT and as the quality measures and vocabulary, the clinical quality Workgroup and the vocabulary taskforce looked at, there are a number of cases where the test itself in public health is described using LOINC, but the results may be an organism or some other type of value that is detected and could and should be represented with SNOMED CT. As everyone in the room knows, one of the special challenges here is that we not only require action on the part of eligible hospitals and providers, and vendors who might be providing certified products for them to use, but we also need work on the side of the public health entities in order that when you send something or somebody receives it and your speaking together.

So, there are a number of existing specialized assets that have been put together for the public health side of this and obviously the good work of the CDC's PHIN VADS group and we have been working with the CDC obviously, but with a variety of other players on trying to get a complete set of things covered for notifiable conditions, and CDC is leading an effort so that we can move toward having the defined subset of LOINC and SNOMED CT that cover all the notifiable conditions required anywhere in the United States. So, this would not only be the nationally required ones but any additional ones that are required by individual states. There has been separate work on the newborn screening guide, but you can also logically regard it as a subset of the broader public health work. So, CDCs, PHIN VADS's group and NLM were in active discussions, and obviously with ONC, about which piece of this should be done by whom. We wanted to obviously avoid duplication of effort and we wanted to get to the more seamless access and integrated access to the things that Doug already alluded to.

And then, very quickly moving to the quality measures. These we are dealing with a broader set of targets, vocabularies obviously and there are a number of special challenges in this in terms of not only developing them and maintaining them, and ensuring that we have a team of people working on them that not only understand the clinical issue and the quality measurement issue, but also the appropriate use of the standards, and that we produce these in some way that is reasonably maintainable and implementable. And, you know, our last one would be and also don't greatly expand data collection burden, at least that would be certainly a goal from NLM's point of view.

So, I think that we have a lot of work to do and we've started, Floyd delivered a large collection of value sets for quality measures to NLM, he managed to get them to me about two days before Christmas so I regarded it as a big Christmas present and we have been looking at those doing some validation. We found that they seemed to be in relatively good shape in terms of accurate reflection of the current version of the standards, the RxNorm piece perhaps not so much, but that's okay because as I explained before we have a special API interface which we can use ourselves obviously to update those. So, we have some more work to do as you all know now that we have this big set delivered and can really start talking about specific issues more reasonably, we need to work on that and with Doug on who should be doing what and how we achieve, as quickly as possible, something that is very useful for both the developers and the implementers. So, the last slide.

Jamie is there so he can contradict everything on this slide if he chooses too, but one of the things that we see as priorities or I do, or NLM does, is we need to do a better job of outreach to the right audiences on the tools and subsets, and resources that are already available because we find that there are a lot of people who could make immediate use and would of some of the things that are already available that don't know about them. We need these consolidated distribution mechanisms that Doug referred to and we'll be working on that. We need to add API features to facilitate access and we are very interested in knowing exactly what types of access would serve the broadest possible needs because we do want to implement using standards but there are some types of access or queries, or whatever that you want to preset up for people if those are the ones that are going to be most heavily used so that people with less technical background can just go do what they want to do. And we also, obviously need to continue to determine whether there are additional subsets and value sets that would help implementers. So, that's it.

Jonathan Perlin – Hospital Corporation of America
Okay, well Betsy thank you very, very much for an extremely eloquent presentation. There are some comments arising, we'll start with Stan Huff.

Stanley M. Huff - Intermountain Healthcare
Betsy, you know, thank you so much for the work that you're doing and I'm excited to see this, you know, the last couple of slides that get to the smaller value sets, if you will, but it's sort of a comment, the sets of terminology that you used seem to, there is kind of a bimodal distribution. There are a small set of really large value sets like, you know, the large value sets or things like diseases and signs and symptoms, and organism names and drugs, and you know, that kind of stuff, and actually there is a relatively small number of those large sets, very important, but then, you know, there is this other set of things where you have 5 to 10 to 20 things in a value set and there are thousands and thousands of those that support the Meaningful Use criteria and that you have to use to make real systems, and I'm sure that a lot of those are in the CMT that Kaiser donated and that's the kind of stuff we make at Intermountain and so it's exciting to see you, you know, starting to work on that other set of things and, you know, the things that I guess I haven't seen, you know, what Floyd gave you for Christmas, but I suspect, you know, there are a lot of us that would think of those as a great gift as well.

And so, we're excited that you're working on that and you know, I'm excited to think about an infrastructure that would let me go in and look for those kind of value sets that I can support work within my own institution using those. So, thanks for the work on that and I just encourage you to keep working on that and I'll be interested to see those kinds of value sets available.

Betsy Humphreys – Deputy Director – National Library of Medicine
Well, gee Floyd I'm sure would be very happy to send this present to everyone who cares, right Floyd? But, we're in the process of actually producing, we're working on another version of it to send back to Floyd that updates some of the minor issues that we found with it, but then we're also looking at it from the perspective of okay now that we know about these how do we move ahead on this distribution issue and the tools that are needed for that?

Jonathan Perlin – Hospital Corporation of America
In fact, Floyd's card is up, Betsy.

Floyd Eisenberg – Senior Vice President of Health Information Technology – National Quality Forum
Okay, so you're very welcome for the Christmas present, but I could say that anyone who wants to see what these are, first of all these were value sets created by a group of 18 measure developers for each of the elements within their measures. So, we did not create them at NQF but we helped to coordinate that they were created and all of these updates are available on the NQF website now, so what I sent to Betsy is available on the site, but in the context of an Excel spreadsheet for each of the 113 measures and Betsy I look forward to the work you may do on harmonizing where some of the values are a little different in one value set to say the same concept that is in another, because there wasn't a facility to do that. So, I look forward to the work that you'll be doing.

I think one of the use cases that needs to be addressed is there are at least four contractors, I'm aware of, currently doing measured tooling or retooling for Meaningful Use Stage 2 and subsequent to Stage 2, and they are creating value sets as they go. So, it would be helpful to understand how that will be incorporated in your process, if it will be incorporated as new sets are being requested. Some of the examples I recognize is some of the names of the value sets are not necessarily as indicative of the meaning that they were intended to serve and can potentially cause implementation issues. So, there are a lot of issues, but I applaud the fact that ONC and NLM have gotten together to help push this forward.

Jonathan Perlin – Hospital Corporation of America
Thanks, Floyd. In his absence, John Halamkas's favorite word, parsimony and a parsimonious approach reflecting the same contents efficiently is much appreciated. Next convergence here is the Clinical Quality Workgroup and the work that you're doing. Let's take the last two comments. I want to make sure that we get to the final topic and the public comment which is so critically important, Jamie Ferguson, Wes Rishel.

Jamie Ferguson – Kaiser Permanente – Executive Director HIT Strategy & Policy
So, thanks Betsy very much for that and I agree with the priorities that you laid out that are proposed for the committee for the vocabulary taskforce. Just reflecting back on part of the earlier discussion here today about using existing standards and not sort of over specifying solutions for narrowly defined use cases, it seems to me one approach that we might take in the taskforce would be to do some lumping before we do spitting, in other words first lump together and understand the broad scope of more detailed requirements for both access and distribution to the vocabulary assets and resources by getting more detailed input on a broader range of uses, particularly those things that have been discussed here today about things that require essentially a scheduled batch update, you know, when a new set of measures or new vocabulary is published on a scheduled basis versus those things that may require more essentially real-time or near real-time look up kinds of access. So, I think that does need to be understood broadly before we can split that apart.

Betsy Humphreys – Deputy Director – National Library of Medicine
I would agree with you, I mean, I think we need to go in some sense, we need both things. We found that in the case of the API access to RxNorm that given that so many people wanted to send us one identifier and get RxNorm back that, you know, we just created a routine for them to do that, you know, but I think that we also don't have really kind of a general idea of, you know, how real systems, implementers and so forth are going to deal with this, you know, when they're going to take, you know, just what chunks they're going to most want to get. So, I agree with you.

Jonathan Perlin – Hospital Corporation of America
Wes, the final word.

Wes Rishel – Gartner, Incorporated
First, last and always. Just building on what Jamie said, we talk a lot about the learning healthcare system where through the magic of computers providers are enabled to do things better faster, that is to learn faster to do things better. We've got a similar issue arising now that we are beginning to require the use of standards and pumping out revisions on potentially a monthly schedule which is how to enable those revisions to be adopted asynchronously. Ideally one might say that there is a single vocabulary server for the country and the revisions go into place all at once for the country, but in fact, we know that code set revisions are a matter of significant concern to healthcare institutions and significant study before they are adopted. The only way to synchronize that many institutions would be to follow the approach we're using with ICD-10 which is not optimal.

Betsy Humphreys – Deputy Director – National Library of Medicine
Not recommendable.

Wes Rishel – Gartner, Incorporated

Right. Yes. So, I think it's on us working with you Betsy or the S&I Framework, and for all I know Doug has this already underway, but the protocols that are used to exchange messages have to deal with the possibility that the systems on the two ends are out of sync on an update to a code set and be able to get whatever residual value is available without them being in sync, and I think for us to have a learning IT system, if you will, that is just one of the fundamental things we have to address.

Betsy Humphreys – Deputy Director – National Library of Medicine
I would agree with you Wes and I would say that is why I would assume that the one use case that you always have to support is that given that anyone receives something that is supposed to be a standard code and for whatever reason locally does not know what it means that there is a place for them to go and send that thing and get back what it is, if it is part of a standard, you know, either an old one or a new one.

Wes Rishel – Gartner, Incorporated
Betsy, I would agree with that, but I think we have to also operationalize a system response that maybe different, for example, you know, Marc Overhage has told me frequently about the approach that the Indiana Health Information Exchange uses for updates to compendia where they aren't pre-warned, which is in effect a workflow for dealing with that information and a way to deal with a record that is supposed to have a code in it that you're supposed to recognize, but doesn't and then gets sort of handled with lesser fidelity but nonetheless the record still exist in the EHR, it effectively becomes like a text record at that point. And, I just think when we are certifying systems to interoperate under whatever legislative authority we're doing it, one of the things we have to be certifying is how they deal with data that is not in their up-to-date code set.

Betsy Humphreys – Deputy Director – National Library of Medicine
I agree and I have heard Doug comment on this issue that we could have these things falling apart under these circumstances.

Jonathan Perlin – Hospital Corporation of America
…Wes has…meetings on not hitting a cliff function in terms of the interoperability. With that let me turn to Doug Fridsma for closing comments and also great appreciation to Betsy Humphreys not only for the presentation but truly the heroic work that it represents and NLM.

Arien Malec – RelayHealth Clinical Solutions
Jon, I'm sorry to do this again, but I do have a couple of questions.

Jonathan Perlin – Hospital Corporation of America
Arien, I'm going to have to defer. We're going to be coming back to vocabulary and value sets extensively during our forthcoming work. Let me turn to Doug and I really don't want to short change the public comment period.

Doug Fridsma, MD, PhD, FACMI – Office of the National Coordinator – Director Office of Standards & Interoperability
So, I just want to have one comment in response to Wes and someone wiser than me once said get it going, get it good, get it great. I think that's a good mantra when we talk about vocabulary and we've talked about this notion of having things that are robust, that we have more than just standards as our way of getting to interoperability and the notion of certification that says you need to be able to both have a way of dealing with things that are standardized and not breaking if we send you something you don't recognize. I think it's important for us to keep in the back of our head if we want to follow that sort of mantra of getting it going, getting it good, getting it great. So, the last thing I want to say is just again thank Betsy for all the work that she and her team has been doing at the National Library of Medicine and really just how productive that collaboration has been.

Jonathan Perlin – Hospital Corporation of America
Thank you very much, Doug and Betsy. And Arien in one sentence, two place holders for next discussion.

Arien Malec – RelayHealth Clinical Solutions
So, subsets for certification number one and number two is adverse drug effects related to class and the ability for VA and DF classes to be used for that purpose.

Jonathan Perlin – Hospital Corporation of America
Perfect, well take that into this and premise it as part of the ongoing conversation. Okay. Well, again, many thanks for that discussion. We're now going to move to the EHR incentive program, get some updates on work to date and ongoing direction, appreciate from CMS Rob Anthony and I don't know if Jessica is going to be joining you today or Rob if you're solo.

Jessica Kahn – Centers for Medicare & Medicaid
I'm on the phone.

Jonathan Perlin – Hospital Corporation of America
And Jessica Kahn on the phone?

Robert Anthony – Centers for Medicare & Medicaid
Jessica is on the phone and she is going to jump in with comments and certainly to answer questions at the end.

Jessica Kahn – Centers for Medicare & Medicaid
Though I have to say, since we're running late, I have a 12:30 that I can't miss so I'll jump in as we go through now and if there are any Medicaid related questions that come up after I leave that Rob can't answer feel free to follow up with me.

Robert Anthony – Centers for Medicare & Medicaid
Thanks. So, this is sort of a year in review for us. We did this year in review earlier in the month for the Policy Committee, it went very well, everyone was very happy and then I was promptly rear-ended on the beltway on the way coming home, so I'm hoping this will be a more successful presentation for us all. Just really quick, kind of an overview of where we are with the program, this is active registration for where we ended the year. In the month of December alone we had nearly 19,000 providers who registered for both the Medicare and Medicaid Program, that is slightly less than what we had in November, which was about 24,000 but it still shows a lot of continuing interest in the program. We've got almost 124,000 Medicare EPs registered as of the end of the year, which is about 32% of all of the Medicare EPs. Medicaid EPs, we have about 49,000 registered, that denominator fluctuates a little bit based on patient volume. Jess, I don't know if you want to talk specifically about that?

Jessica Kahn – Centers for Medicare & Medicaid
We don't actually have a very good census, you all are probably aware of the denominator of eligible providers for Medicaid. We do for hospitals for the most part a good enough estimate, but not for eligible professionals because the patient volume requires that the state or CMS know what each provider's complete payers mix is and nobody has that even in states with all payer claims databases, they have limited levels of encounter data for managed care and so it's just an unknown construct so we're working our best on estimates, but we don't have anything really to benchmark at this point.

Robert Anthony – Centers for Medicare & Medicaid
All together there are about 3000 hospitals that are registered, that is about 3/5 of all of the eligible hospitals and critical access hospitals that can participate in the program. So, we ended the year with just over 176,000 registered providers. I'm going to go a little bit into the Medicare and then Jess if you want to do a little bit on the Medicaid side. CMS made almost half a billion dollars in incentive payments to providers in December alone to almost 5200 EPs, 5000 EPs and almost 200 hospitals. That is a slight increase over November we paid about 4200 EPs. We're continuing to see some good traffic in January. I don't know yet if we're going to see that hold, certainly its encouraging news.

Where we'll end the month I'm not really sure right now, but part of this certainly is because EPs work on a calendar year and they have 2 months after the end of the calendar year to get their registrations and attestations in so that February 29th deadline is still looming for those folks and we're continuing to see people come in for 2011. So, these are not yet the final, final numbers for 2011.

The exciting news for us is that we passed the billion dollar mark in incentive payments, ended up close to 1.4 billion dollars for the year paid, that's an increase of 1/3 of where we were in November, so you can see the train is sort of rolling on our end and also on the Medicaid end.

Jessica Kahn – Centers for Medicare & Medicaid
Right. So, these numbers, as of December reflect 41 states, again professionals cannot register and participate in the program if their state has not launched. We now have 43 states up and running. So, this only represents the possible end from 41 states and some of the larger states in the country California and New York that will have the biggest number of providers only launched toward the end of the year and they actually had not started making their big payments yet. So, December even though it looks pretty great I think is actually modest compared to what is to come in the first quarter of this calendar year.

Robert Anthony – Centers for Medicare & Medicaid
So, overall we've got a combined total of nearly 700 million in incentive payments that went out in December. We ended the calendar year with over 2.5 billion dollars in incentive payments paid to providers; it's something that I think CMS is happy to see. I think that everybody who has worked on a portion of this program is happy to see that success and certainly providers who are getting involved in this can be proud to see that this is getting up and mobile.

I have a couple of graphs, initially when we did these we were leery, it was sort of a flat graph, it's wonderful to see that in September, October, November, December it's gone straight up. This is providers paid by month. So, as you can see towards the end of the year we're definitely seeing more of the attestations come in and again we should see some more through January and February, that's true of both Medicare and Medicaid a number of the states also have deadlines that extend 60 or in some case even 90 days. And certainly incentive payments by month, you can see that great line that goes up at 8, I'm not sure what that is a 50/60 degree angle but it's exciting, it's encouraging we're glad to see that and again we're starting to see some more folks come in.

Jess, I actually have the older version of your map because I don't have the access to the newest, but did you want to talk a little bit about what this represents for folks?

Jessica Kahn – Centers for Medicare & Medicaid
Sure, if you actually look on the version that was presented to the Policy Committee it shows how we've looked at this across the past 3 quarters of 2011, so you can see a lot more green. The information that is in the top right, that shows that 42 states launched as of January it is actually 43, and then the number of those that are dispersing incentives is 33, just like CMS started registration in January, did attestation in April and made payments in May, many states are also staging their launch, so they might open but they're not necessarily making payments immediately, that's why there is always a smaller number of states dispersing incentives than there are that are accepting registration.

So, you would have to adjust the map a little bit, but the point is this is tremendous participation from states that are facing significant Medicaid budget woes and other competing priorities. So, we're really pleased with the way this looks and it's not indicated here, but we even have participation from many of the territories that are planning to launch this year. There are essentially 7 states if you don't count the territories who haven't launched yet, but they fully intend to do so within the first six month of 2012.

Robert Anthony – Centers for Medicare & Medicaid
So now we're going to segway into some of the attestation data the Meaningful Use data that we have. Just a few caveats here, this is all as of the end of December. We really only have information here on Medicare, it's not just Medicare EPs, it's Medicare EPs and hospitals, but the Medicaid EPs right now or

at least in 2011 attesting to adopting, implementing and upgrading. So, anything that we have here is sort of a little bit of an incomplete data set. There are acute care and critical access hospitals that can be receiving both Meaningful Use incentive payments from both programs, so we do have some crossover on the hospital side, but on the EP side it is just Medicare. There are Medicaid hospitals that are only attesting to AIU, we don't have any of that data. As we move forward from January onward we'll have both Medicare and Medicaid MU data as well as some Medicaid AIU data available.

So, just a couple of highlights, the big question, and anybody who has seen us talk about this at the Health IT Policy Committee as the months have gone on, there is slide, I think somewhere where I have an "n" do we have the "n" do we have a critical mass, do we have enough people to start drawing conclusions of things? And initially what we didn't have was much of an "n" you saw the graph of number of people who had attested that took off in the last few months. Now, we've gotten to the point where we probably have numbers, especially on the hospital side where, you know, you'll see we have about 800, so we're close to 20% of those. What we don't necessarily have at this point is a representative sample of those providers.

So, as we go through we'll talk a little bit about that, but what we're looking at essentially is early adopters and we're hesitant to draw conclusions about what this means about Meaningful Use or particular objectives based on the attestation data that we have, because in some instances you'll see as we go through on average all of the thresholds that we have here for these objectives were greatly exceeded, but, you know, you still have people who are in various ranges on things and in some ways this is what you would expect from the early adopters, these are the people who are most prepared to implement the technology, who are a little bit ahead of the curve. We're going to be looking at this data as we move forward into 2012 and we have more people who are on-boarding who perhaps are not at the forefront of the curve to see if that trend holds true and I think we're probably going to see some of the high averages level out a little bit.

Jessica Kahn – Centers for Medicare & Medicaid
And if I could chime in I would also add there are no pediatricians, no nurse practitioners, obstetricians, physician assistants, all the groups that are only eligible under Medicaid and all the specialist who predominately serve Medicaid populations and their related clinical care. So, you're also looking at, you know, fairly primary care and generally people who serve Medicare eligible individuals. So, that also influences what they take to the menu, what their thresholds are. So, it's a huge caveat to think about, but we'll start reporting to the Policy Committee and to the world about Medicaid Meaningful Use later this spring, because states have started to collect attestation on Meaningful Use for those providers that did adopt, implement and upgrade in 2011.

Robert Anthony – Centers for Medicare & Medicaid
So, as we go through this you're going to see there is not a huge difference in scores between eligible professionals and hospitals. There is actually not a huge difference among specialties as far as performance is concerned, but there is a difference in exclusions, we'll talk a little bit about what we know now. At the time we did this analysis we had about 33,500 Medicare EPs that had attested, 33,240 of those successfully. There were 355 that were unsuccessful. Last month when we looked at this there had been 444 that were unsuccessful, which means we had 89 who went through and resubmitted information, and that could be resubmitted information because they realized that they made a mistake when their attestation was rejected, and they went back and corrected that mistake. It could be that they went back and resubmitted new information for a completely new 90 day period. So, we do have 842 acute care and critical access hospitals for the eligible hospital side, all of those were successful.

So, we grouped these according to how the objectives fall together for these categories. This category is for quality, safety, efficiency in reducing health disparities. We've lumped the recording objectives together. You can see that this consists of recording problem list, medication list, allergy list, vital signs, demographics, smoking status. Where we go through performance exclusion and deferral there are some slight differences in what those percentages represent. So, the performance is going to represent the average score where you have numerator over denominator. Exclusion represents the percentage of EPs who actually took the exclusion and percentage. Deferral represents the percentage that actually

deferred that. Where there is a non applicable it's because that's a core measure and everyone has to report on it. Obviously, the ones where they can select a deferral as a menu and it simply means they did not select that, they opted for others. Where you have a non-applicable for exclusion it means that there was not an exclusion provided and where you have a non-applicable for performance it's a yes/no measure, so there is not a numerator/denominator average.

Overall, you can see that this is a very high category with people scoring 90, 85, 78, the send reminders to patients at 61% performance seems low but only by comparison to the rest of these objectives that the actual measure threshold of that is 10%, so 61% is moving well beyond that measure threshold. As I move through these I'll highlight what we've seen in some of the changes from the previous month, these are of course not monthly aggregates these are aggregates year to date, so this is what we're seeing for 2011. If I don't highlight anything that changed it means there wasn't a significant change, plus or minus 3% overall.

We saw an increase in the number of exclusions for CPOE from 14% to 17%, for ePrescribing exclusions from 19 to 22, clinical lab results the deferrals went up slightly from 32 to 36. We saw a slight change in drug formulary exclusions up from 11% and a slight decrease in the patient list deferrals that went down from 31% to 27, again, not a huge amount of movement at this point in time.

For objectives about engaging patients and their families we saw an increase of the number of exclusions taken for electronic copy of health information from 67 to 75% and a decrease in the timely electronic access performance slight from 78 to 75%. We sometimes get asked particularly about the high exclusion rate for E-Copy of health information, the exclusion for this objective is if no patient asks for an electronic copy of their health information, so as we see the program gaining a little bit more traction and there is a little bit more public awareness of it and that they can ask for this, we may see that exclusion start to trend downwards.

Improving care stayed basically the same, both of these again have fairly high deferral rates, they're menu objectives for medication reconciliation, summary of care, transitions, they're probably some of the more difficult to implement for EPs, it represents more of a change in workflow, so they tend to be choosing these a little less than some of the other menu objectives.

And then where we see some more fluctuation tends to be on these submitting data to public health agencies, this is submitting information to immunization registries and submitting syndromic surveillance data to public health agencies. We actually saw a decrease in the number that tested, just a reminder that in performance it really is testing with a public health agency and it doesn't necessarily mean that the test has been successful, we're just requiring a test of the capability for Stage 1. So, we saw a slight decrease in the performance from 42 to 34%, a slight increase in the exclusions from 37 to 45%, not sure exactly how meaningful this is, it probably has more to do with the fact that we have clarified what you take as an exclusion versus what is an unsuccessful test in an FAQ and I think more people probably realized that if the state agency doesn't have the ability to test that that you should be in the exclusion category, so we're really seeing more of a migration. A slight increase, again, in the number of exclusions for syndromic surveillance, probably for the same reason.

Again, with eligible hospitals we're not seeing a huge difference here, advanced directives, the number of deferrals decreased slightly from 16 to 13%. The number for incorporating clinical lab results decreased from 22 to 18%. Seeing about the same measurements for eligible hospitals, a slightly lower exclusion rate for electronic copy of health information, probably more people realize that they are able to request electronic health records from their hospital at this point in time, and again as we move forward we may see that continue to go down.

Again, high deferral rates on the care coordination for med rec and for summary of care at transitions. And then as we look at public health data for eligible hospitals a slight increase in the exclusion rate for immunizations and a subsequent decrease in the deferral rate, again probably has more to do with the clarification of what qualifies for an exclusion.

So, we start to look as we've gotten a greater "n" at specialty performance, we're looking at, for these various specialties who is scoring highest on what objectives, are there particular objectives that pose particular problems for specialties, what are the stumbling blocks? Some of the preliminary results at this point in time, and again we don't necessarily have a huge "n" in some of these specialties so it's hard to draw a conclusion about what this means, but we do see that with family practice, internal medicine and optometry they are higher than other specialties for CPOE for med orders, but optometry also had one of the highest exclusion rates for CPOE, so we're definitely seeing that it is individual to workflow.

Optometry and podiatry had some of the lowest rates for recording vitals, which in itself is probably not terribly surprising given the scope of practice. Gastroenterology had a lower rate for patient electronic access versus other specialties by nearly 10% and for providing patient education, resources we saw optometry a little bit higher than others, podiatry about 20% lower than others. I think what I find most interesting here is that across the other measures we see a lot of consistency with hitting the thresholds among specialties. As we're moving forward and especially as we hear about particular workflow issues in different specialties we're going to be looking at that very carefully to see if that continues to hold true. Again, early days, so I hesitate to draw conclusions, but at least encouraging at the beginning.

Just a couple of concluding points, I just wanted to make the point that I know that various folks sometimes take information from this slide, but we definitely want people to take a look at a data and reporting section that we've put on the CMS website that is sort of our official repository of registration and attestation numbers, so please refer there. Sometimes we update following these presentations and you'll find the most recent figures there. And as Jess had indicated we're going to start seeing some Meaningful Use data from Medicaid EPs as we move through the year because some of the states have started getting some of that data for eligible hospitals and eligible professionals.

So, I'd be happy to take any questions on this and if anybody needs me to flip back to a particular slide to look at please let me know and we can flip back through it.

Jonathan Perlin – Hospital Corporation of America
Rob, I have to say it's gratifying to see the manifestation of the work embodied by the progress represented. Just a quick, of 842 hospitals how many were critical access hospitals?

Robert Anthony – Centers for Medicare & Medicaid
I would have to go back and take a look at the data. I'm not sure off the top of my head.

Jonathan Perlin – Hospital Corporation of America
Okay, thanks.

Robert Anthony – Centers for Medicare & Medicaid
We are actually looking to, now that we've gotten more of a critical mass, to break down some of this specifically by critical access hospitals so that we can, again see if there are particular objectives that are challenging for them.

Jonathan Perlin – Hospital Corporation of America
Any comments that anyone would like to offer? Well, thank you very, very much, again it is gratifying to see the full manifestation of the implementation and appreciate your keeping us apprised as you get more data and are able to make some observations about the different categories of all providers, appreciate your work and hope that your travel home is safe today.

Robert Anthony – Centers for Medicare & Medicaid
Let's hope so, thank you, and if anybody has any follow-up questions we'd be happy to try and explain any of this that we can, thanks.

Jonathan Perlin – Hospital Corporation of America
Terrific, thank you. I think as we share a group value the public comment period is one of the very important, it is part of really the fundamental reason for Federal Advisory Committees and the way they

are chartered under the Act, so just to be very brief let me just conclude the business of the day with a couple of observations. A lot of great generative discussion around the work plan, a lot of work ahead. We will put our heads together in terms of not only responding to the NPRM and ANPRM but also sort of trying to think about how we can anticipate, that means, that as with the last time around, some important work and time limited work in response.

A lot of the threads about Nationwide Health Information Exchange will be obviously a large part of the continued discussion and Doug very much appreciate the update that you provided. Similarly, a theme that ran through today's conversation was the content dependence and independence of vocabulary and code sets, toward that end the point that came back a number of times, the need for really efficiency and adaptation, learning, no cliff function in term of the fundamental implementation hugely important.

Again, I think it was robust and Doug I hope, I trust a hopeful discussion about the input on the portfolio and the building blocks, but what an accomplishment to at least be able to have that sort of discussion and then again, I think all of us understand that the use case shouldn't constrain the blocks but rather the reverse, that the blocks should facilitate a variety of use cases in general. And, Wes I think the thing that resonated through the day was really get it going, get it good, get it great. It's really an ample theme to sort of close the loop of the State of the Union concept that the state of activity has decidedly moved from getting it going to really a middle stage recognizing that there is work to do to go from good to great, a lot to celebrate and the good that has been accomplished.

John Halamka and I have spoken off-line about some of the issues we mentioned and really I know we're joined by a commitment to both the public health and the healthcare that affects not only our country and communities but even personally. So, thank you for your commitment both professionally and in the passion that you bring as individuals to this work. With that let's move to Mary Jo and invitation for public comment.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Thank you, Jon, we will open for public comment now. So, I would ask the operator to open the lines to those who would like to comment from the lines and I would ask anyone in the room who would like to offer a comment to come forward to the table and to keep your remarks brief and identify yourselves. Operator?

Caitlin Collins – Altarum Institute
Yes. If you are on the phone and would like to make a public comment please press *1 at this time. If you are listening via your computer speakers you may dial 1-877-705-6006 and press *1 to be placed in the comment queue.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Is there anyone on line operator?

Caitlin Collins – Altarum Institute
We do not have any comments at this time.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Thank you. All right we'll go to Carol Bickford who is here.

Carol Bickford – American Nurses Association
Carol Bickford American Nurses Association. Is there a mechanism for the National Library of Medicine to post the slides that identified the various actions related to SNOMED, RxNorm and LOINC, that was very helpful and appreciating the value of that work on the last presentation. Thank you.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
If we have no more comments, Jon back to you.

Jonathan Perlin – Hospital Corporation of America
I think I will close with that. I'm sorry Mary Jo there is another comment.

Mary Jo Deering, Ph.D – Senior Policy Advisor – Office of the National Coordinator for Health Information Technology
Oh, I apologize.

Anna Marie Saarinen – Ainsley Shea and Health IT - Newborn Coalition in 1 in 100
Sorry, I missed the earlier meeting. Thanks committee. I've been coming to these meetings, Anna Marie Saarinen, sorry about that, Newborn Coalition in 1 in 100, I do policy work for a small firm out of Ainsley Shea and Heath IT in Minnesota, and I've been coming to these meetings for probably 2 years or a little bit more now and this is the first time I've ever made comment, so bear with me, but I wanted to thank you all really for all your diligent work over the years. Sometimes I leave these meetings and I have a little bit of a headache because I've learned so much and there are so many new acronyms to learn.

But, in particular I work on pediatric and newborn health issues in the rural and underserved communities and my own daughter was diagnosed at 2 days old with congenital heart disease so we made our way through 6 different hospitals in 3 different states when she was just an infant and followed her medical information from place to place. So we saw sort of the pitfalls and the opportunities in that journey. But, given that these kids are indeed the highest patient transfer populations one of the reasons I wanted to work as closely as I can with a number of the people on this committee to try to advance not just newborn screening but other health information exchange facets that particularly effects this population because they are so at risk.

But today we have an opportunity in Minnesota that I have shared with a few of you to develop a pilot program, actually it's well on its way through development where we're going to use just a really simple point of care screening to serve as an electronic birth notification that will be essentially an electronic newborn health record for public health and it will be the hub for additional information, reportable conditions on that child to be organic and accessible, and growing. So, its one place instead of having all this silo'd information within our State Department of Health the way it is sort of now all broken up. And the cool thing about it is we're actually able to leverage Direct in having the smaller community hospitals and rural hospitals have a very simple form of transport to be able to send that information at 24 hours of age to the State Department of Health and create that foundational hub. So, it's been very, very exciting and it's been fun to kind of bring the information from this group over to the newborn screening world and see how it all blends together. So, anyway my daughter is 3 now, doing beautifully and I'm grateful for all of the work that is being done here to help others.

Jonathan Perlin – Hospital Corporation of America
I think that is a fitting note on which to end today's meeting. Many thanks to everybody and thanks to all the public members who come to the meetings and provide input, guidance as to what resources we should make available but also the meetings in communities, the challenges day to day. Thanks, all. We stand adjourned.

Public Comment Received During the Meeting

1. TO Betsy and Floyd: Any comments on issues on ownership/IP of quality measure value set content? Will these value sets be available for access directly from the NLM?